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

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

External Quality Assessment Report

Yerevan - 2021

CONTENT

Abbreviations and Acronyms

YSU - Yerevan State University – Yerevan, Armenia

NPU National Polytechnic University of Armenia – Yerevan, Armenia

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

ISU - Ilya State University – Tbilisi, Georgia

GTU Georgian Technical University – Tbilisi, Georgia

TeSaU - Iakob Gogebashvili Telavi State University – Telavi, Georgia

BSU - Belarusian State University – Minsk, Belarus

BrSTU - Belarus Brest State Technical University – Brest, Belarus

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

NCSRHE - National Center for Strategic Research in Higher Education – Yerevan, Armenia

Katholieke Universiteit Leuven – Leuven, Belgium

UB - Universitat de Barcelona – Barcelona, Spain

UP - Spain Universidade of Porto – Porto, Portugal

Portugal Linköping Universitet – Linköping, Sweden

Sweden FH Joanneum Gesellschaft mbH – Graz, Austria

AI – Artificial Intelligence

CBHE – Capacity Building in Higher Education

EHEA – European Higher Education Area

HE – Higher education

OER – Open Education Resource

ToT – training of trainers

TSDC - Teaching Staff Development Centres

T & L- Teaching and Learning

Introduction: Background and Timeline

The key questions: to provide an overview of summary evaluation of the project. For it the data were captured from different sources – questions discussed with the coordinator, participants and the produced documents which are available on the website of the project, the websites of the universities, on the social media etc.

The overall relevance of the project is assessed against the whole set of qualitative and quantitative data gathered and analyzed, thus the current report is both informative and evaluative to introduce the practical sides of the project and force the further implementation of the outputs/outcomes especially regarding the adoption of new pedagogical approaches which were generated throughout the lifetime of the project implementation as well as moving a step ahead with higher education reforms concerning such aspects as quality assurance, national qualifications framework, institutional and programme accreditation, recognition of the qualifications and many other topics which are on the top agenda of the countries in the European Higher Education Area.

Judging from the activities done, the transformation of the project outputs/outcomes to new tasks within the partner countries and institutions is needed which will increase the overall capacities of the universities. In my strong conviction, the higher education issues are still a high priority with all the partner countries irrespective of their economic, social or political background and preferences.

One of the components of the project – the establishment and operation of the teaching staff development centres (TSDC) at the universities is an efficient ready-made tool that may be adapted to any new context without even spending much resources on developing regulations, operational plans, and benefiting from ready-made packages for establishing a TSDC within a higher education institution could be a very good chance to transform the project outcomes into a new opportunity for the HEIs in different countries of the world. The trained trainers which have already got a sufficient experience over the last two years may provide trainings to new target groups across a wide range of institutions – from primary to life-long informal level. This could be a very good scenario to give the ideas of the project a second life to grow in many new settings in partner countries and beyond.

It is also worth stating that the occasional readers of the report can also take out something valuable for them in case they want to get oriented towards making similar changes in their country or university contexts. Independent users of the report outputs/outcomes may also find various hints on how to clearly move towards getting prepared to teaching or learning with the use of the new innovative tools so as to ensure the personal professional development as well as to contribute to substantial changes in higher education systems within their countries.

For making all the above-mentioned continuities work efficiently, the universities – PRINTel project participants, should go on with introducing the outputs/outcomes of the project in different new settings so as to make new people benefit from all the resources that were created during a four-year period of the lifetime of the project.

After highlighting so many aspects of the possible use of the project results, however, I will still keep reserved to speaking about the project outcomes which can be considered as mid-term or long-term results. In my perception, they are not seen immediately after the end of the project but will be seen after some time, when we will be able to witness some change at the ground level. That is why we will keep to mostly using the term of the **<u>outputs</u>** which are achieved upon the implementation of the project, though the term outcome will also be used in the same meaning just to avoid repetition which will make the style of the report redundant or superfluous.
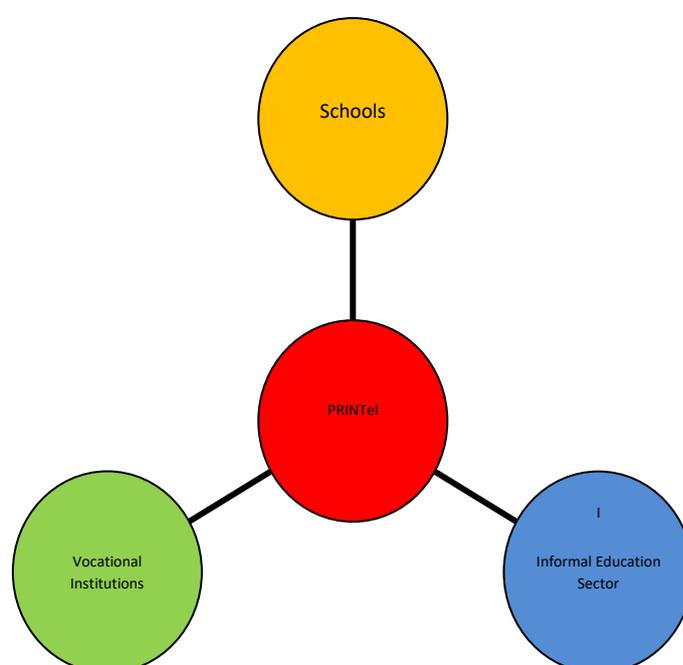
However, in spite of the fact that we still need time to really assess the long-run benefits of the project, it is possible to measure the immediate impact of the project on the academic communities in the countries which were engaged in the PRINTel project, especially connected with decision-making at the universities to move on as fast as they can to pace up with the world changes and challenges, provide the students with high quality academic programmes through the enhancement of the "learning experiences" as the project title says as well as foresight a bigger change through the development of ICT and digital competences and their multilevel and multifaceted use for shaping different other types professional knowledge, skills and competences which are on high demand at national and international labor markets. If we take the broader anticipated impact it is about the overall modernization of HE and society. This must be treated as a tool to achieve broader social goals, which means it must be linked to HE capacity to answer to global challenges such as sustainability, smart development strategies, adapting to climate change, solidarity, and equality, etc. Thus, strengthening of the digital competences of teaching staff and students, improving the teaching tools and methodologies through academic curriculum is of an utmost importance for the next generation of CBHE programs.

General Methodology for Preparing the Report

The focus here is on how to extend the outreach of the programme so as to make a bigger impact on the higher education of the countries.

It is necessary to realize that it is not possible to put together all the information that may further be utilized, however, it is a question of discussing the issue of giving a second life to a project to extend the outreach of the project outputs/outcomes to other higher education institutions, and also to discuss the possibility of the use of the new innovative teaching and learning tools at schools and vocational institutions as well as to go a little bit farther and find new ways of implementation of the tools developed for informal education section to increase the relevance of life-long education as well as the role of these tools in different real-life settings.

New Targets of the Projects:

It is remarkable to realize that the project was highly manageable with the creation of a new culture of working together within a big consortium with emphasizing the role of personal, team, group and collective responsibility of the participants which is one of the strongest positive sides of the project.

The ship (the project) has a captain with a single mind. The "captain" was one (the coordinator of the project), however, all the countries as well as partner institutions have their own coordinators that ensured the complex, corporate work of hundreds, if not thousands (if we take the students also into account) of people. Aligning those pivotal leaders so that they can

steer the project in line with the plans and the schedules is a result of a dynamic management of Yerevan State University in its capacity of leading the project from the beginning (December 2017) to the end (October 2021). The superior level of the management of the project was broadly emphasized by the participants of the "PRINTel" Final Conference which was held on the September 29, 2021, as well as by the representatives of the universities from the programme countries during the online interview with them on October 7, 2021. The style of the management is worth to be studied by those who want to develop new Erasmus+ CBHE projects, or those who have already run them and need to review or remap their activities and measures to raise the efficiency of the project.

It goes without saying that in the course of the last 30 years, especially after the collapse of the Soviet Union which coincided with the time of the rapid development of the technologies, the topic of effective university teaching and learning has become more than relevant. The drastic societal changes have been reflected in the content of the individual and mass behavior, which in their turn, have fostered the development of new teaching and learning tools, thus enabling the universities to adequately respond to the demands of today's students which have a higher level of consciousness and are more demanding than their peers some four or five decades ago.

Besides, as it was mentioned at the face-to-face meeting with the representatives of Yerevan State University, finally we started to signify the importance of teaching at the university level as it was the research that was the top topic for the last at least five years. Undoubtedly and indisputably, the research was another very important pillar of education, but the university teachers achievements were assessed mainly against the number of publications they made during an academic year, thus, the teaching competences were a little bit sidelined.

When we look at the project very closely, we can understand that it is about the development of transversal competences of teachers which is a big issue, and it is in the focus of education systems across the world. The efficient professional development of the teachers is no longer possible without the upgrade of the transversal or cognitive skills of the teachers. The discourse on the transversal competences is relatively new in education policies, and it has emerged as a reaction to the increased professional demands for a response to the current educational needs of all students in inclusive environments, thus, the universities that were engaged in the project, have a chance to go on with their reforms to ensure the highest level of the professional expertise of their teachers. All these competences of the teachers are very precious and need to be developed all the time as even in the digitized age the Artificial Intelligence (AI) cannot emulate the creativity, merging of different practices and experiences, combining thoughts etc.

The topic of the teachers' professional development is not very much about their development but about new research on the quality of education which unquestionably points to the fact that teachers are the most important external contributors to students' achievement. At some later stage the training centres of the universities could be easily converted into research centres where many new approaches may be tested before their introduction in the core curricula of the university programmes and courses.

Another issue that I would like to give importance in my report is the real tangible output of the project which is not the digital classroom creation, or the trained teachers, but the increase of the students' motivation through the use of all the PRINTel changes. The primary goal of the innovative education is the increase of the students' motivation and participation which are studied in the students' feedback reports. Together with teacher competence development they may be regarded as two main **outstanding achievements** of the project.

From the perspective of the European context, the PRINTel project was co-funded by the Erasmus+ Programme of the European Union as higher education is a backbone of Europe, and in order to push the development, it needs to invest in projects which will adequately respond to the world challenges and help the institutions in the EHEA (European Higher Education Area) as well as the countries beyond it to ensure the social and economic development. For it, the students of the universities need to study effectively so as to be able to combat the changes and contribute to the growth of their countries.

A year and half has already passed and we are not fully back to our common mode of life and studies, however, it is the very moment to clarify certain very important issues connected with the digitalization of the education, and shifting into a "safer" online teaching and learning zone. In my opinion, we should pursue the golden middle for the universities to use the technologies to achieve their pedagogical goals, but we don't need to overestimate or absolutize online mode of education, otherwise we are endangered to go into another extreme which may result in a sudden decrease of interest of the students to get back to face-to-face academic education which is still very much appreciated in many countries.

The PRINTel project is a courageous dialogue between the educators across nine higher education institutions from the post-soviet space, from one side, and five European institutions, from another side, to establish a new academic teaching and learning setting and help the universities to really improve the content of their programmes and courses, as well as the quality of the teaching and learning which are the major drivers of the enhancement of the quality of education. Looking ahead, I want to note that in terms of the scale of the involvement, the degree of responsibility of team participation, the level of work performance, the quality of the educational products created, in my opinion, this project claims to be the best in the country, and perhaps one of the best in the region of the Eastern Neighborhood. None of the objectives was thought out by chance; all of them consistently implemented the general concept of the project, which radically changed not only the attitude to the content of teaching and learning, but also to the quality of higher education. And the project is elaborated so as it is possible to use each piece of the project independently, and there is no need to spend time to tear it from the larger context.

I would also like to mention that the project is highly sustainable, that is, oriented to the future, as it ensures wider country sustainability as well as improves the content of the programs that train future economists, businessmen, IT specialists, specialists in mining metallurgy, teachers, and so on, which constitute the core of the economic infrastructure of the partner countries, as all the improvements in the quality of teaching and learning are associate with the innovation which will lead to the sustainable development through defining a new agenda for

both the public and private sectors, playing a critical role in shaping new directions of the national economies of the participant countries.

The PRINTel project has been triggered by the need to promote development and innovation in teaching & learning, support integration of research and dissemination of good practice in Armenia, Belarus and Georgia with the support of the European universities. Thus, the following institutions participated in the project:

1. Yerevan State University (YSU) – Yerevan, Armenia – P1

2. National Polytechnic University of Armenia (NPUA) – Yerevan, Armenia – P2

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

4. Ilya State University (ISU) – Tbilisi, Georgia – P4

5. Georgian Technical University (GTU) – Tbilisi, Georgia – P5

6. Georgia Iakob Gogebashvili Telavi State University (TeSaU) – Telavi, Georgia- P6

7. Belarusian State University (BSU) – Minsk, Belarus – P7

8. Brest State Technical University (BrSTU) – Brest, Belarus – P8

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

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

11. Katholieke Universiteit Leuven (KU Leuven) – Leuven, Belgium – P11

12. Universitat de Barcelona (UB) – Barcelona, Spain – P12

13. Universidade do Porto (UP) – Porto, Portugal – P13

14. Linköping Universitet (LiU) – Linköping, Sweden P14

15. FH Joanneum Gesellschaft mbH (FHJ) – Graz, Austria – P15

The project is funded by the European Union in the framework of the Erasmus + CBHE Programme, and focuses on the increase of institutional capacities of nine universities in Armenia, Belarus and Georgia with the support of the universities from Austria, Belgium, Portugal, Spain and Sweden.

The project consortium is well-balanced – three universities per country were selected from partner countries, one of them a classical university, another one is a technical university, and the third one is a regional university, as well as one research centre from Armenia. Five partners from Programme Countries– FH Joanneum Gesellschaft mbH, Graz, Austria, Katholieke Universiteit Leuven, Belgium, Universidade of Porto – Porto, Portugal, Universitat de Barcelona – Barcelona, Spain, and Linköping Universitet, Linköping, Sweden, were selected for organizing trainings of trainers on five different tools - Active Learning with Special Focus on Technology Enhanced Collaborative Learning, Active Learning and ICT-Enhanced Teaching: M-Learning and Gamification, Video as a Learning Tool for Teachers and Students, Active Learning in the Flipped Classroom, Hybrid/Blended Learning.

For making the current external evaluation report more reliable and objective, meetings were held face-to-face and online with the members of the consortium, and the following participants were enrolled in them (See Appendix 1) by providing me with the valuable information on the key aspects of the project.

In order to carry out the project quality analytical external evaluation, I would like to start my report with the introduction of a broader context of the countries the universities are from, to understand the circumstances under which the project was held and the real impact in a wider perspective that may influence this context.

The broader context is connected with the political developments in Armenia connected with the war on Nagorno-Karabach and the democratic crisis in Belarus as well as COVID-19 pandemic which was a common issue with all the participating institutions both from Programme and Partner countries. All these or any of the abovementioned developments could have hampered the smooth implementation of the project, could have terminated the project any minute but have not, and luckily the universities within these two countries were eager to go on with the project activities planned beforehand to ensure the smooth implementation of the project.

When discussing the broader context of the project we should start with the focus on the challenges that COVID-19 pandemic brought to the education systems and the universities across the globe, and to the partner countries and universities, in particular. The lockdown and the shift to an online mode of teaching and learning were unexpected challenges for all the universities and education institutions in the world. The pandemic tested the resilience and flexibility of the universities in the face of uncertainty, and the PRINTel project was a good experience for the partner universities to go ahead in a meaningful way so as to get adapted to the new reality efficiently with the good deployment of a big slack of teaching staff that were not only ready to work in a new mode but also to become the important mentors for the colleagues who needed some support, consultancy or additional training within the partner institutions. This is the case when the dissemination and the impact went hand in hand as the solution was in the rapid spread of the new teacher competences and skills that the participants gained through Training of trainers which turned into the so-called intellectual transformers or personalized umbrella-units at their institutions and beyond, and trained and supported their peers to catch up with the world and be able to work under new critical conditions.

The COVID-19 has not only changed the people's life at an unprecedented scale, but also offered a new focus on the use of the technologies everywhere including the education. The pandemic amplified the need to review the current teaching and learning approaches at the universities, and the PRINTel project has become the lifebuoy for nine universities in three post-soviet countries, which since the start of the project in 2018 have done a lot to pace up with the digital momentum of today.

The COVID-19 started in the last year of the implementation of the PRINTel project, and as most of the professors mentioned in our face-to-face or online meetings, the project tools

became very handy to switch to an online mode of teaching and learning so as efficiently combat the educational restrictions.

Looking at other broader issues we would like to mention the political the situation in Armenia, Belarus and Georgia, as well as certain societal issues, which, however, can hamper the project implementation.

I should start with the war in Nagorno-Karabakh, which was launched on 27 September, 2020, and lasted for 44 days, and made all the participating universities from Armenia shocked and concerned about the war outcomes, the people who were sent to the hotspot, and many other things that may psychologically affect the people and hinder them to efficiently perform their daily routine job let alone contribute to the project. However, the lessons learnt from the war have a direct connection with the quality of teaching and learning as the quality of higher education is one of the major prerequisites to straighten the bent back of the country and move ahead in overcoming the war "after-effects".

Analyzing the situation in Belarus, we should say that in the light of the political crisis the Belarusian universities did an unprecedented consolidation of their resources and efforts to go on smoothly and efficiently with all the planned activities and the events of the project. However, the experts from the Programme Countries mentioned that there was initially a huge difference in the degree of openness of mind of the teachers from Belarus to react to the changes, and as it mentioned by Janerik Linguist, the Swedish Coordinator from the University of Linköpings, there was even resistance from a colleague from Belarus to change anything in the context of his teaching and learning, however, as soon as he went through the training he regretted that hadn't done it before. The low level of decision-making on the teacher level is conditioned by the centralized system of higher education in the country there were used ready-made prescriptions and frames which negatively affect the teachers' productivity and the quality of higher education.

The political situation in Georgia is relatively calm compared to Armenia and Belarus, except for the political elections' crisis in 2020, however, it didn't affect the efficiency of the active and constructive involvement of the Georgian universities in the PRINTel implementation throughout its all stages and activities.

When we look at the situation now, from the current perspective, the PRINTel project may serve as a common ground for merging the real borderlines not only between the participant countries but also at a wider catch, between all the countries that want to network the PRINTel platform to benefit from the project outputs/outcomes.

The tools were spread faster than the organizers could have imagined or expected when they planned the project in 2017. However, looking back, we can understand that the project was elaborated on time to anticipate the estimated changes and challenges in three national higher education contexts in Armenia, Belarus and Georgia.

The author of the report was given a full access to all relevant external and internal documents which are available on the project's website http://www.PRINTel.am/, from the original documentation, PRINTel project proposal, the Logical Framework Matrix - LFM,

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available documentation including the reports & deliverables, best practice and needs assessment reports, operational plans, student feedback reports, annual monitoring reports, guidelines and publications. Direct communication with the project coordinator, prof. Armen Budaghyan. was obtained almost on daily basis either face-to-face or via Skype, as well as on the jitsi platform with the groups of were held with the participants of the project from all the countries and the universities. Morever, the email communication was maintained with contact persons from all the project partner institutions in order to collect and summarize the important information for reporting and evaluating the findings. The methodology starts with project overview and analysis of planned and achieved deliverables and cross-matching with logical framework matrix in order to define to which extent the quality of results meets the plan according to the available indicators. Finally, the summary of external evaluator finding is provided.

The general objectives of the project were to enhance student learning experience in the partner countries (PC) in accordance with ET 2020 objectives by promoting development and innovation in the teaching and learning, supporting integration of technology and research, and dissemination of good practice, as well as modernizing HE in Armenia, Georgia and Belarus in line with the Bologna agenda, as well as establishing cooperation in education and training between the EU and partner countries and amongst PCs by promoting virtual mobility of teachers and enhancing lifelong learning resources.

The old and even archaic pedagogical tools hinder the development of higher education systems of the countries; however, the increase of the technical opportunities to moderate the content of education requires their rapid integration in the core curricula of the academic programs. For it the universities need an additional capacity building with the support of the advanced centres of the European universities not only to make this process more purposeful, but also to accelerate the real changes which are targeted at improving the content of higher education courses across all types of degree programmes.

The general objectives were correctly formulated as they are cohesive with the agendas of countries and universities. There are measurable and auditable changes that prove the successful realization of the project objectives:

➢ New capacities of the universities were developed.

➢ New skills and competences of the teaching staff were elaborated.

➢ Increased understanding of the content of the changes is ensured.

➢ Proactive participation of the universities in all the activities was in case.

➢ Increased quality of teaching at nine universities in three partner countries was achieved.

➢ High number of the students benefited from the improvement of the teaching.

➢ the use of new teaching and learning tools has become more purposeful.

The on-time redirection of the resources for online teaching in the COVID-19 lockdown time was another proof of the sustainability of the project as the fast shift to a new teaching and

learning mode has become possible due to the teaching staff that were able to teach with the use of the pedagogical tools which were cultivated within the project and reflected in five different guides on five different pedagogical tools. The enhanced productivity of the teaching staff within the COVID-19 time restrictions were one of the tangible proofs of the high efficiency of the general objectives and the results achieved in the countries as well as the institutions. Thus, the key objectives set out for the project have produced a long-term and lasting effect that is not restricted to specific capacities, teaching contexts but have led to broader changes which are going to have a multiplicative effect and be observable for months and years after the project completion.

The project implementation was carried out in a step-by step and consistent manner according to Project work plan. Objectives, activities, outcomes and impacts have become possible due to the rigorous time management of the project which allowed expiration of the full agenda of the projects without serious delays and adjournments.

The four main areas of activities were:

1) To strengthen Teaching Staff Development Centres (TSDC) in the PC HEIs by enhancing capacities of staff and trainers, modernizing infrastructure and introducing innovative teacher training and academic leadership programmes.

> For it the revision of the functionalities, capacity building of staff and trainers was conducted, modernization of the infrastructures and adoption of innovative teacher training programmes were maintained.

> As a result 6 TSDCs best practice reports were prepared with subsequent recommendations, 6 need analysis reports on teacher training courses, 6 approved operatonal plans for TSDCs, 30 trained staff for TSDCs, and 4 newly established TSDCs at partner universities.

2) To build up capacities of the partner HEIs' teaching staff by developing their innovative and technology-enhanced T&L skills and abilities of competency- and research-based teaching.

For achieving this objective 5 ToT courses were delivered at 5 EU Partner universities, and 100 trainers from 3 countries participated in 5 courses on innovative active teaching and learning tools. 5 online training of trainers' courses were delivered by the EU partners and 100 ToTs went through these trainings. 18 technologically enhanced active classrooms were established at 9 partner universities.

Capacity building was achieved through workshops and seminars, in house face-to-face and online trainings, 1650 teachers in 5 innovative methods were trained, 5 regular IT courses were adopted and 1470 trained teachers benefited from their courses which were highly estimated by the students in their feedback reports. Through all the trainings total of 4550 trained teachers and 50000 potential beneficiaries were.

3) To establish a Virtual Academy of Teaching & Learning (VATL) as an international community of teachers, staff and students interested in using and sharing Open Educational Resources (OER) for the improvement of technology-enhanced T&L.

Creating of a VATL portal was an ambitious objective, as different types of activities were to be done for it: preparing e-manuals, learning how to build multimedia content, use e-resources

As an outcome of the course, big digital communities were created and using virtual portals and courses have become the part of the university quality culture.

4) To promote greater awareness on the types and methods of innovative and technology-enhanced T&L and to disseminate best practices within and between HEIs in the PCs.

Through the dissemination of 1000 leaflets, 5 brochures on Active learning and Teaching, 800 copies of Teacher's Handbook, information seminars and 12 master classes constitute a huge repository of the resources which later may be utilized by other universities and higher education stakeholders.

The project provides higher education communities of the PCs with an interactive professional communication, mutual learning and virtual mobility platform and OERs (open education resources) - the VATL (Virtual Academy on Teaching and Learning- to promote innovative T&L practices and continuous development of the teaching staff.

6 virtual communities of teaching practice around particular teaching approaches and disciplinary groups, an annual virtual forum on innovative T&L, as well as internal institutional incentives were established to promote awareness on innovative pedagogy and excellence in T&L.

To train the staff and the trainers and via the use of the mode of "train the trainer" multiply the effect of the result of the project by involving new teachers and adapting TET courses for the university teachers were developed.

Evaluation Methodology

The overall evaluation methodology has been designed in accordance with the analysis of the project public deliverables in line with the work packages.

The external evaluation report, may therefore be intended to serve as a summary of the work of the project with a view to future reflection. The watchword for the external evaluator was flexibility and the assessment work has been done to evaluate from an objective point of view the design and the implementation of the project by analyzing its:

The evaluation logic and process will focus on 4 main areas:

- **Relevance.** The evaluation aims at identifying whether the project was able to successfully address the general and specific objectives of the project; observing the degree of innovativeness of the project and the outputs/outcomes gained which may bring an added value at the country as well as EU level in terms of strengthening the EHEA especially connected with the recognition of education programmes in all its signatory countries through the improvement of quality of teaching and learning;

- **Quality of implementation**. The evaluation aims at identifying whether the project activities were carried out as planned; and the effectiveness of the results achieved which may become god practices for not only for partner countries and institutions but also for other

stakeholders which are interested in raising the quality of higher education through the upgrade of teaching and learning methodology.

- **Quality of cooperation**. The evaluation aims at establishing mechanisms for coordination and communication between the universities and organizations from progamme and partner countries, between the members of the project consortium and other stakeholders of the project.

- **Quality of dissemination.** The evaluation aims at confirming that dissemination activities were of good quality and in line with the application.

- **Impact.** The evaluation focuses at confirming that the project has delivered an outstanding impact on the participating institutions, immediate participants and beyond the consortium at local, regional and European levels.

- **Sustainability.** The evaluation aims at exploring partners´ strategy towards maintaining activities and results after the EU funding ends and how they will support this process. It will also check project's potential and prospects for scalability and/or transfer into other fields, areas or contexts.

The report also describes how the universities can make further improvement so as to further increase the impact of the project. It may also be used as a dynamic tool that should be updated on an ongoing basis to reflect programme changes and priorities over time. The report may serve as a bridge between evaluation and further planning of the activities by highlighting those objectives that have already been reached as well as by defining new objectives and intended outcomes.

Evaluation Aims

The evaluation is focusing on the organizational and management aspect of the project as well as what is produced within the project and how it is possible to further use all the produced items (documents, trained staff, training tools, technical equipment) within narrow (university) and broad (country and society at large) contexts.

The External Evaluation pursued to certify that no delays occurred with a negative impact on the project results.

The external evaluation thus tried closely to analyze:

- the progress made towards the expected Intellectual outcomes and respect of the contractual workplan;

- the quality of the outcomes;

- the manner in which the partnership performed as a transnational collaboration (cross-cultural understanding, sharing of activities, effectiveness of communication, meeting deadlines, etc.);

- the effectiveness and impact of dissemination activities and the extent to which the project has employed models of best practice from related projects;

- the extent to which a strategy for sustaining the project activities has been applied within the project; with the inclusion of the target groups (teachers, students, families, local communities, public stakeholders) in project planning and activities;

- the quality of the training materials produced for the TSDCs,

- the quality of Activities within all the seven WPS of the project;

- the technical equipment that is purchased for the universities to carry out the promotion of the video and other types of technology-based lessons with the active use of interactive methodology.

All the domains of evaluations involved in the report allow us to assess the real impact of the project which can bring another strategic change to the Partner Universities in the mid-and long-term future.

Project Context

General findings

After detailed insight in original project proposal it can be concluded that the project was carefully planned and steps towards obtaining project objectives are duly defined. Also, after inspection of Logical Framework Matrix, it has become obvious that project team is well aware of possible obstacles and risks. The Project Steering Committee is is also very well defined. It is shown that coordinating team of the project was very well selected. Development work packages produced resulted in various forms: reports, trainings, handbooks etc. Actual delivery dates are not explicitly given in all documents, but according to the metadata, most deliverables are aligned with the proposed timeline. The Project Steering Committee was established during the kick-off meeting with the responsibility of making decisions.

A careful and detailed distribution of responsibilities, tasks and budget were documented.

All the meetings have feedback reports with the detailed analysis of the satisfaction of the content of the event: for most of the event average of 83-97 % of the participants are very satisfied and find the events very useful.

A Project Steering Committee (PSC) was established during the kick-off meeting with the responsibility of making ultimate decisions. PSC involved per one representative from each partner and met biannually in order to review the project progress and its performance and to make necessary changes if needed. To give all partners opportunity to participate in decision-making process PSC took collective decisions by consensus voting. All decisions made are documented. To avoid excessive disputes in case of disagreement among PSC members, an additional vote was allocated to the chairman.

To facilitate communication with and within countries and administrative execution of the project in national context 3 national and 1 European coordinators were nominated who worked and communicate with 15 institutional contact persons and teams and periodically report to the project Steering Committee.

Project scope management was carried out through WP lead partners (LP) who took care of WP implementation and reporting on the achievements. This ensured active involvement of all partners and sense of ownership. LPs took responsibility for achieving objectives of WP and overseeing its timely and effective implementation. LPs created and manage special task forces involving members from all partners to carry out WP activities.

Formal communication channels were organized through periodic coordination and status meetings, as well as regular communication. The project started with kick-off meeting at YSU to inform and engage all partners, introduce contract obligations and rights, refine division of tasks, clarified roles and responsibilities. PCS had 6 coordination meetings to inform on project status, review progress and accomplishment of milestones, make needed changes and decisions. It will conduct also monthly virtual status meetings via web-conferencing to address any issues and get feedback from partners. Meetings will be documented and minutes distributed. Regular

communication will be conducted by e-mail and shared electronic database and a network drive to store and distribute information.

A detailed and careful distribution of responsibilities, tasks and the budget documented in bilateral contracts ensured smooth implementation of all the activities.

Project Outputs & Outcomes

The operational and standard activities are analyzed emphasizing the strong and the weak points of the achieved deliverables/results. The analysis is based on the inputs available on the website of the project as well as other pages that disseminated the results of the project.

All the WPs of the project are fully harmonized with the project proposal. Each of the WPs is well elaborated in terms of dispatching activities and tasks between all the 15 members of the project consortium. All the deliverables are aligned with the proposal of the project. A wide range of activities was maintained around several types of activities: maintaining needs analysis reports, developing a rationale for TSDCs, organizing the trainings of trainers and in-house trainings, maintaining the establishment and promotion of the VATL, studying the feedback of the events both from teachers and students, monitoring and reviewing the quality of performed activities, disseminating events of the project via face-to-face and online conferences, workshops, with the extensive use of different offline and online media to target all the potential beneficiaries of the higher education capacity building project targeted at boosting the quality of teaching and learning through the implementation of innovative pedagogical tools which can increase students' learning and drive them towards their personal success.

The project embraces 7 WPs, each of them is evaluated based on the quality of the tasks done and the results achieved which were studied based on the surveys and feedback reports within each WP.

WP1. Strengthening Teaching Staff Development Centres (TSDCs)

This Work package was coordinated by the NPUA foresaw revision of functions of TSDCs, capacity building of staff and trainers, modernization of infrastructure, adoption of innovative teacher training courses. WP 1 deliverables contain 6 activities, and each of them is documented in the reports and embraces best practice reports from 5 universities from Programme countries. Activity 1.2. contains questionnaires both for the assessment of the needs of the students, teaching staff professional needs. The questionnaires for both reports were thoroughly elaborated. They contain the same questions on the teaching, learning and assessment styles and approaches, the use of technologies, facilities and support, as well as teaching and learning materials. The needs analysis reports are available in English and Armenian, and it is not clear whether they are available in the Georgian and Belarusian languages, and in case they exist, they are missing on the project official website. Operational Plans of TSDCs (Activity 1.3) are available in English as well as in all the official languages of the partner countries. For it the

Guidance Document for Designing an Operational Plan for a Teaching Staff Development Center at HEI was elaborated which guides the universities to prepare the mission statements of the centres, vision statements which should be clear and succinct, as well as SMART (Specific, Measurable, Achievable, Relevant, Time bound), budget, staffing plan and the annual report. The guidance orients the universities to range their activities and define the role of the particular training courses for the staff development. The guidance is a well-developed and a comprehensive document which takes into account all the dimensions of the modern university that has to act in the 21st century – from planning, networking to internationalization, quality assurance and role descriptions. All the operational plans of all the partner institutions are approved by the Academic Councils of their universities, and the reports of the 9 partner universities contain the information on the date of approval of these documents. The Teaching Staff Development Centres (TSDC) at different universities has different history and traditions and approaches that were used to upgrade the level of the teaching and the administrative staff of the universities. The NPUA Teaching Staff Development Centre provides courses not only to the university teaching staff but also to wider public. The operational plans of the partner institutions were linked to the strategic plans of the universities (NPUA), at VSU the training is conducted both for the upgrade of the teaching and research needs. "The Teaching Staff Development Centre (TSDC) is a new structural unit at Ilia State University, which is created due to the needs, which are identified based on student and teaching staff surveys delivered by HR and Quality Assurance Office (2017 and 2018), assessments by QA offices of program managers/administrators at faculty/school levels (2018), and external reviews of academic programs by local and international experts (2018)[1]". The Institute of Professional Development and Retraining at BrSTU has a wide range of training and retraining courses for the managers and the teaching staff, internships for executives and specialists, retraining programs of managers and specialists with higher education in 19 specialties; - retraining of managers and specialists. On the whole, all the operational plans are very well developed to cover all the aspects that are required for the TSDCs to function efficiently and serve the purpose of the improvement of the quality of teaching and learning at the partner universities. It would have been more practical for the universities to introduce the SWOT analyses of the Centres as any re-planning or reorganization requires the SWOT analysis as it provides information on the future planning strategies, and also to understand whether the new objectives are attainable or not.

Activities 1.4 and 1.5 were targeted at organizing trainings for the staff of the partner universities at 5 European universities. Activity 1.4 focused on the staff of the TSDCs, and Activity 1.5. - on the capacity building of the trainers. Each of the activities is very well documented, and contains the attendance list, participant's guide, presentations, attendance lists and feedback surveys. The European universities covered most important topics that are relevant in the context of the TSDCs' staff and trainers' development: regular teacher training, educational methodologies, development of digital competences, e-moderating, problem-based learning, active learning, etc. It is remarkable that the content of the courses was substantial and not superficial, the trainers learn how to use such tools as TeDi Moodle Basics, TeDi Moodle

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[1] http://printel.am/uploads/page/pdfs/P4.%20ISU%20TSDC%20Operational%20Plan.pdf

WIKI, TeDi Moodle Test, TeDi Peer Review, TeDi Lessa, TeDi Learning videos, and so on. According to the feedback report, approximately 75 % of the participants of the trainings found them useful or extremely useful, and the participants also had time to discuss the tools, make suggestions or recommendation for the improvement of the content of the training courses. One of the suggestions that was made by the participants was focused on delivering the presentations beforehand to have more time to acquaint with them and be ready for a more active discussion which is worth taking into consideration by the project coordinators in their further activities. All the study visits and training courses which took place at 5 European universities, were conducted on a face-to-face mode, and the participants of the trainings got immediate feedback to their answers which is an added value of offline meetings when we view such events through the lens of the situation connected with the pandemic and the restrictions the universities had for organizing face-to-face events after March 2021 (though in Belarus there was no full shift to an online mode, and the universities were open for the students and the staff though not at all volume they used to working before the COVID-19 time).

Activity 1.6. focused on purchasing equipment for the universities. The tender conditions were specified in the special invitation letters for Tender for Equipment Procurement, however, only the invitation letter details of YSU are available on the PRINTel website[2].

Discussing the impact of this WP may be started with the highlighting of professionalism as prerequisite of the quality work done in any field in of the economy which has its benefits both for the economic and social development of the countries.

The PRINTel product maintained the role of establishing the professional identity frame for the university teacher of the 21st century that may use transversal skills to operate under a variety of educational contexts and settings. There are certain domains which are very important nowadays, such as teaching and research which should be revised from the perspective of the used didactics and pedagogical tools.

It has implemented some new aspects of teaching which were still not the part of the culture within the partner countries, though were occasionally practiced within several universities, yet, they had not been institutionalized regarding the establishment of the common frameworks, methodologies, teaching staff development centres, virtual platforms, network forums etc. Interestingly, all the partner countries have become very engaged in all the activities of the PRINTel with the view to innovate the content of its degree programmes so as to provide the students with up-to-date skills and competences.

It has brought some new changes of the capacities of the universities, which are, in my opinion, are worth mentioning:

- The students started to use public networks and internet-based resources as a part of their learning process;

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[2] http://printel.am/uploads/page/pdfs/am.pdf

- The students have more intensively been engaged in group and team activities which, from one side, is a good way of developing of their collective responsibility, and, on the other side, another challenge of the teachers to assess their shared input based on the newly elaborated criteria, which requires further enhancement of the teachers competences, thus ensuring wider sustainability of the project results.

- The students are provided an access to ready- made resources which is an efficient way of the delivery of educational materials to the students.

- The universities and teachers who were not yet in the whirl of the changes may benefit from the enormous range of the existed resources of TSDC to set up similar units at their institutions.

All these development will reasonably become very important in the context of higher education, and it is important to increase the number of the individuals and organizations who might benefit from the project outcomes in the future years.

Beyond all the above mentioned it is also worth mentioning that the role of the teacher has only recently begun to be recognized as teaching the citizens of the XX century is really a challenge with all the range of teaching competences that should be elevated to help the universities to bring a real change in the societies and countries.

WP.2: Capacity building of Teaching Staff (TS)

ISU was a lead partner of WP.2 and took care of its implementation and reporting. This WP intended at developing PC HEIs' teaching staff innovative and technology-enhanced T&L skills. The trained trainers adjusted TOTs to the local needs and organized in-house teacher training (TT) courses. Each couple of trainers trained a group of 10 teachers in their HEIs with the active support from EU partners. Based on predefined selection criteria 53 groups of teaching staff 530 in total were selected to participate in TT courses. To accommodate newly designed TT courses for further regular use a workshop was organized in YSU with participation of all partners to get feedback on the delivered TT courses. Based on post-training evaluations and feedback from the workshop, TT courses were fine-tuned for regular usage by TSDCs. Current teaching staff development programmes at TSDCs will also be revised and modified to integrate TT courses.

The trained trainers and teachers piloted the acquired innovative T&L methods in their regular classes. Current syllabi, student assessment criteria and procedures were revised and approved by respective departments, student surveys were conducted. Institutional teaching staff discussed the results with departmental Student Councils and prepared follow-up reports. However, the follow-up reports in case they existed, are not available among the Activity deliverables.

Within this WP in-house teacher trainings were organized at all the partner universities (Activity 2.1). For the fine-tuning of TT courses, a conference was organized in YSU in May

2019 (Activity 2.2). The resources of the discussion groups are all available on the website. The reports of 5 discussion groups are very well structured. They focus on the benefits for the teachers and students, challenges as well as contained information on the elaboration of the national concept of active learning concerned by national groups. All the topics of the Discussion groups were very well selected and served the purpose of particularization of a wide range of activities that may be used by the university teaching staff in order to improve the quality of teaching and learning such as "Active Learning with Special Focus on Technology Enhanced Learning", "Active Learning & ICT-Enhanced Learning: M-Learning & Gamification", "Video as a Learning Tool for Teachers and Students", "Active Learning in the Flipped Classroom", "Innovative Teaching and Learning in Higher Education Institutions Hybrid/Blended Teaching & Learning". The experience of NPUA is worth mentioning here, as it organized in-house trainings not only for the faculties, departments or chairs located in the same city, and also organized a training at a high school, thus, NPUA geographically and professionally extended its diversity outreach, and, increased the impact of the project on wider groups of participants and layers of the society: TT Course #11 "Active Learning in the Flipped Classroom" was conducted at Gyumri Branch of NPUA. Another training was organized at NPUA High School entitled "Teaching and Learning Inovative Approaches"**.** Activity 2.3 focuses on teacher training courses to develop the lecturers' professional skills and enhance their ability to use innovative teaching technologies. At YSU the total number of trained teachers was 499, at NPUA – 137, VSU – 11, ISU – 53, GTU – 264, TeSaU- 44, BSU – 182, BrSTU – 62, YKSUG- 63. Totally 1315 people were trained within two years to be able to use the innovative teaching and learning methodologies in training the teaching staff at their universities. The information on the trainings at each of the institution is well documented with the pictures that fragmented the training. The participants got the certificates of completion which is a very good tool for the recognition of the results of such trainings by the universities. It is worth mentioning that Activity 2.4. Piloting T & L Methods in PC HEIs Curricula is very important from shifting from the preparatory stage of capacity building to the main stage when the programme improvement is taking place. The total number of 971 students were involved in 28 courses conducted by 9 professors at YSU, 12 professors at NPUA engaged 836 students in 16 courses, 6 professors engaged 372 students in 15 courses at VSU, 9 professors engaged 702 students in 9 courses at ISU, 11 professors engaged 199 students in 11 courses at GTU, 5 professors engaged 109 students in 6 courses at TeSaU, 6 professors engaged 479 students in 17 courses at BSU, 31 professors engaged 838 students in 34 courses at BrSTU, and 6 professors engaged 281 students in 15 courses at YKSUG. The following T& L Methods were used across the universities: Flipped classroom, Mentimeter, Padlet, Gamification, Mobile learning, Polling, Blended learning, Collab. L., Coop. L., PBL, Inquirybased L., World Café, Brainstorming, Role playing, Mind mapping (Mindomo, Miro), TECL, Scavengcker hunt, etc. Activity 2.5. - Student Feedback Reports at all the universities, shows that the students marked the use of the technologies very efficient, and on average, 1-3 % of all the students engaged in the classes marked the teaching and learning with technologies as boring. They also mentioned that the innovative methods are especially relevant on the stage of the acquisition of a new material. The students gave priority to group discussions, brainstorming, group projects and debates, and this was indicated by the 90 % of the students across the

universities. The student survey reports are available in English, Armenian, Georgian and Russian languages. In our opinion this feedback was a very well thought out and planned tool as helped the project team to reveal the level of students' engagement in the courses; identified the role of the teaching and learning methods applied by the lecturers to foster students learning; clarified students' participation in the courses, the issue of active engagement in the learning process fostered by the teaching staff; assessed the students' satisfaction level in terms of communication efficiency with lecturers; as well as clarified the issues of students' acquisition of the skills in team and collaborative working. It is worth mentioning that the reports prepared by the universities across three countries show that the students were selected for the survey from all the faculties of the universities.

Activity 2.6. focuses on organization of online TOTs held by the 5 EU partner universities in February 2021 on 1. U.PORTO "Video as a Learning Tool for Teachers & Students: Video Lecturing & Promoting Interaction in the Classroom", University of Barcelon (UB) Active Learning & ICT-Enhanced Teaching: M-learning & Gamification, FH Joanneum Gesellschaft mbH Hybrid/Blended Teaching & Learning, Linköping University (LiU) Active Learning in the Flipped Classroom and KU Leuven Active Learning with Special Focus on Technology Enhanced Collaborative Learning. All the courses were held online in conformity with the accepted regulations regarding the Covid-19 pandemic situation. Each course is well documented and contains the syllabus, participants' list and the feedback survey (the questionnaire and the report). The sections of the questionnaire are very well defined so as to reveal the feedback of the participants on the diverse questions from the Objectives and Content of the Online Training; Quality of the Instruction; Training Environment and Technologies, Trainers/ Instructors, Time Management, Benefits/ Results, Overall Impression, Participant's Opinion on the Online Training; to Overall Organization of the Event. On the whole, the participants of the online training courses found the ToTs very useful and relevant to the new context of teaching and & learning approaches and methodologies. Within Activity 2.7. online in-house trainings were organized at all the nine universities. All the in-house trainings are well documented and contain Timetable of the training, Summary of the trainings, participants' list and the feedback report. In Armenia 10 different activities were introduced to 172 teachers by 10 trainers at YSU, 7 trainers introduced 8 activities to 83 teachers at NPUA, 7 trainers introduced 7 activities to 107 teachers at VSU. In Georgia 6 activities were conducted by 12 trainers to 76 teachers at ISU, 12 activities were introduced by 12 trainers to 195 teachers at GTU, 5 activities were introduced by 10 trainers to 200 teachers at TelstU. In Belarus 14 activities were introduced by 14 trainers to 155 professors at BSU, 12 activities were introduced by 2 trainers to 128 teachers at BrSTU, and 7 activities were introduced by 7 trainers to 77 teachers at YKSUG

All the trainings were purposeful and productive according to the feedback of the participants.

WP 3. Creating the Virtual Academy of Teaching & Learning (VATL)

BSU was the lead partner in WP.3 as the most advanced PC partner in teaching with technologies. Main goal of WP 3 was to establish a virtual platform promoting and disseminating innovative technology-enhanced T&L and use of OERs. It provided online teacher development services to EPC academic community.

Relevant infrastructure for implementation of VATL network was set up within the project. Each PC HEI was equipped with the necessary hardware, software and communication infrastructure to produce OER content and support implementation of common VATL portal. 9 multimedia content building studios assembled with audio-video and lighting equipment which are established allowing teachers to create OERs with multimedia content. Methodological guidelines (VATL Manual) for implementing OER concept were elaborated, published and disseminated among PC HEIs. To secure smooth and efficient adoption of the Manual, a training with a workshop, conducted by qualified OER trainers, was organized in KU Leuven for the trainers and staff of TSDCs.

To operationalize VATL, each PC HEI produced and publish OERs for VATL repository. The materials were published on each HEI's hub and indexed within the common VATL portal thus resulting in a functioning VATL network. To evaluate the initial products, each HEI created a representative group of teachers and students who were enrolled in specific VATL courses and provided feedback on the value of OERs and on overall impression from VATL.

From the meetings with the representatives of the NPUA it has become obvious, that they have their university courses which are implemented on their local platform, and all the courses are available offline from any of the university computers. As to the Belarusian Universities, the representatives mentioned that they had problems with duplicating the courses on the VATL, as they have their national platform where the professors from all the three Belarusian universities uploaded their video lessons.

The logics of all the activities within WP 3 are very clear – from preparing the terms of reference for creating the VATL, multimedia content building studios (Activity 3.2.) finding ICT solution for VATL portal (Activity 3.3), preparing guidelines for OER Content publishing, training of trainers on OERs (Activity 3.5.) and Operationalization of the VATL (Activity 3.6.). The most important deliverable of WP3 is the creation of the open depository for the wider use by academic communities and students interested in innovative teaching and learning. Within the WP3 the training and workshop on the Development of Open Educational Resources (OER) was held at the Catholic University of Leuven (KU Leuven) (Belgium) on October 15-17, 2019. Twenty nine representatives of 9 partner universities from Armenia, Georgia and Belarus attended the training and workshop. The trainees were introduced to the current approaches to OER, the main methods of their use, transformation and dissemination, as well as to the core requirements necessary for the preparation of educational videos. The training and workshop proved to be one of the most productive PRINTeL courses that were targeted at enhancing innovative teaching and learning at partner univrsities. The trainees acquired theoretical knowledge and practical skills and created a measurable and valuable product of innovative T&L

– educational videos. The training is very well documented; it contains syllabus, participants' guide, training materials, workshop materials, attendance list and a feedback survey. The latter contains the feedback questionnaire and the report.

Among the drawbacks of the VATL portal it is worth mentioning that not all the links to the VATL portal for accessing the courses are available, and the enrollment options for some courses are also restricted though the purpose of the platform is to provide the wider public with the links to the resources. The List of the VATL courses of NPUA is not active, and it isn't possible to access them from the PRINTel portal.

The VATL courses of the universities may serve as a visit card for the future students as they can get acquainted with the quality of the courses delivered at the universities they are interested in. Besides, it may regarded as a transparent tool that witnesses the quality of education of the university where the course or a lecture is a part of a curriculum.

For the universities the VATL courses may serve as tangible and valid proofs of the quality of their higher education services, and the further development of the new lectures and courses may extend the visibility of the universities and promote to the boost of their brandband by emphasizing the uniqueness of their education services.

The project itself, being a dynamic phenomenon changed a little bit its initial plans on purchasing equipment for the universities after the training that was held at on 3-7 December 2018 at the University of Linköpings (Sweden) Active Learning in the Flipped Classroom, and it was decided to reduce the number of the technically equipped classrooms from three to two per university but buy all the necessary equipment which is necessary for any university to have for recording, voting, life mainstreaming of video lessons. Each university purchased a server to independently use it for the project needs for film, lecture and video shooting.

All the partner universities provided the technical support to the installment of the technical equipment as their in-kind or co-sharing contribution to the project.

When we try to assess the impact of this WP regarding the purchasing and exploitation of technical equipment we shall start from the wider benefits: the countries and societies need workforce that is technologically ready to maintain different types of job with the improved perception of the technologies.

Besides, the use of the technical equipment increased the added value of the university services through:

➢ Changes to policies and procedures which are or may later be fixed in the strategic plans and programmes of the universities and have continuity in their further use and exploitation.

➢ A better understanding of teaching and research needs and how they should be align with technical equipment and services

➢ A more engaged teaching staff and students that is familiar with the educational technical equipment and its benefits

➢ A clearer focus of the preferences and interests of the current and the next generation of students which are surrounded by technologies from all the sides of their life and studies.

However, the ultimate goal of enriching the universities by different types of innovative equipment is not the extension of its technical empowerment as such but the change how the teachers and students can gather, access, analyze, present and transmit information. This is an important and very reliable tool for democratizing information in the university classrooms as well as help to differentiate instruction and the ways of the students engagement.

And another very important aspect of the VATL and the use of the technical equipment of the courses is very appropriate for students with special needs to reach the courses and the lectures at a remote distance.

Thus, we can say that VATL is a new word in the area of assistive pedagogy and education as it brings together the new competences of the teachers, the diversified needs and interests of the students, the technological opportunities of the equipment and the expectations of different external stakeholders of higher education such as labor market, communities and societies that are seeking their own share of benefits from every single new educational opportunity.

WP.4: Raising Awareness on Innovative Teaching & Learning (T&L)

GTU was the lead partner of this WP, and it focused on going deep into exploring the digital innovative technologies and disseminating good practices among the participants.

3 virtual communities (websites using VATL services) of teaching practice around particular teaching approaches (e.g. problem/project-based, case studies, game/simulation learning) and 3 communities of disciplinary groups (Humanities & Social Sciences, Pedagogy and Teacher Training, Science and Engineering) have been created which is a huge asset for the partner universities to benefit from each other and cross-feed with the resources when needed. Annual VATL Forum (virtual conference) was established to promote dialogue amongst academic communities on regional and international level, to share and discuss the specific topics and issues of T&L, crucial for the year. The first forum was organized in M5/Y3 of the project. VATL also provides social networking services to encourage multichannel collaboration and dialogue through VATL blog, Facebook & Twitter, Discussion forums, and YouTube channel.

Institutional award schemes for the excellence in T&L to recognize and stimulate staff engagement in innovative T&L practices were also established at partner institutions, and here the universities fund the contest organization and the prizes for the winners.

Activity 4.1 VATL Community of Teaching Practice focused on creating 5 VATL Communities to foster discussion on Hybrid/Blended teaching, Active Learning and ICT-enhanced teaching: M-learning and gamification, Active Learning in the Flipped Classroom, Active Learning with a special focus on Technology Enhanced Collaborative Learning and

Video as a Learning Tool for Teachers and Students//Video Lecturing and Promoting Interaction in the Classroom. Though the separate webpages are created for this activity within WP4, the participants are not so many and not so active and the partner institutions need to share the links on the social media to attract more people to the discussion. The Youtube guide for explaining how to become a user is very comprehensive and helps the participants to add a new topic, make a comment, subscribe, unsubscribe, and so on.

As it was mentioned at the meeting with the coordinators of universities from Programme Countries, the discussion forums will be tracked even after the completion of the project as it help to ensure the sustainability of the project outputs/outcomes. From ours sider, we would like to mention that these forums may have become more popular in case they had been broadly advertised through the social media, and for the further steps the partner universities need to increase their visibility and more intensively report on the progress of their teaching staff and the universities. In my opinion, the forums may be a little bit extended by inviting the students to express their opinion too, for getting the result of the work done at first hand.

Activity 4.2. "VATL Forum and Innovative T & L" is one of the key public online events "Annual Forum on Innovative Teaching and Learning of VATL/PRINTeL" which was held on the 20th of May, 2021, was very efficiently elaborated. It displayed to the participants of the forum how European and Eastern Partnership Country (EPC) universities responded to the changes in teaching and learning (T&L) that came about because of the Covid-19 crisis. All the video records and presentations are available on the PRINTel website. The topics of the programme of the event covered all the aspects of the teaching – from the academic misconduct to the examination schemes. In total 12 different presentations were delivered, and the overall organization, format, topics and content, speakers, technology used were highly estimated by the participants. From the feedback survey it is clear that 69.5 % of the participants met their expectations, however, some participants reacted that half a day was not enough to fully understand so many things at once.

Activity 4.3. is targeted at creating VATL Social Network Services. It is very active, however, the Facebook page has only 345 followers, and the largest number of the view of Printel Youtube channel presentation is not more than 49, and the largest amount of views belongs Levan Tsaganeli, it has 49 views, and the video lasted 1.47 min. The universities - participants of the project should go on in disseminating their activities via the social platforms, as sharing of the relevant information may bring new people to the VATL, and possibly give it a second more extended life with the participation of more institutions from partner countries and beyond.

Activity 4.4 introduces bilingual packages of incentives and awards of all the nine universities. This activity will, undoubtedly, sustain and be one of the best mechanisms of motivating teachers to over many years as it has established procedures and regulations on the annual competition of teachers. It will contribute to the elevation of the competences of the teachers. Several universities established various formal of moral encouragement (symbolic prizes and certificates), however, two of them – YSU and NPUA, established the forms of the financial encouragement of the professors which, of course, will have a broader impact on the

sustainability of the measures taken to positively boost the professional development of the teachers. At the meeting with the representatives of the NPUA it has become clear that the National Polytechnic University of Armenia implemented financial incentives for their contest (300000 AMD for the first prize, 250000 AMD 300000 AMD accordingly for the second and third prizes) as a part of the financial input of the university in the project. The financial encouragement of 300000 AMD including taxes is also prescribed by the regulations of Yerevan State University, moreover, it also rewards each winner with 1000000 AMD including taxes for video-recording an innovative educational module. In my strong conviction, this practice should later be implemented at all the universities, as it is a strong driving force in any country let alone the post-soviet countries where the average salaries of professors are still relatively very low compared to the incomes the university teachers have in various countries of the world. Besides, the institutionalization of the award practices and its becoming part of the quality culture of higher education in the partner countries could be another added value of the project.

WP 5 Quality Control & Monitoring (QC&M)

Quality control and monitoring of the project implementation oversaw all the tasks necessary to ensure that the project is running within the scope, on time, and of expected quality. The lead partner for WP.5 is KU Leuven, and it took care of overall implementation and reporting for WP5.

The project coordinator (YSU) along with KU Leuven carried out biannual monitoring of activities within each WP. They monitored progress and tracked milestones of each WP implementation, regularly communicate to respective WP lead partners (LPs) and task-forces (TFs). The monitoring activities included site visits, progress review meetings with LPs and respective TFs, study of documents and review of interim, partial or pilot products/outputs.

According to Activity 5.1., the Quality Evaluation Committee was elaborated, which consisted of 7 members – two representatives of YSU, and one representative from each European university. The Committee was in charge of analyzing quantitative and qualitative data from all the participants of trainings, workshops/seminars, study visits and coordination meetings, on Feedback surveys of the participants of trainings, workshops/seminars, study visits and coordination meetings followed by producing evaluation reports. According to the plan many of the activities are shifted from 2020 to 2021 because of the COVID-19 restrictions. Activity 5.2. embraced Monitoring Reports of the 1st, 2nd and 4th year of the implementation of the project with the 3rd year missing because of the pandemic.

From the Monitoring Report1 we can conclude that the relevance of the contributions by the EU partner HEIs was assessed from approx. 70 to 90% within all the activities of the project. It also contains the observation of the explicit feedback of the participants. The monitoring reports contain detailed information on the successful completion of the activity on establishment of the TSDCs across the institutions and the countries based on the local needs analysis and operational plans. Monitoring Report 2 overviews the activities and timeframe of

Year 2 across all the work packages, and it focused on the capacity building of staff, trainers of the TSDCs In 9 universities 1315 teachers were trained through 96 courses which comprised 1672 teaching hours within one year which is an outstanding record and achievement of the project to reach so many teachers, student so as to improve the quality of higher education. Monitoring Report 3 observes the quality of all the WPs of the project and came to the conclusion that all the activities within 7 WPs were performed effectively and efficiently and all the goals were achieved and the outcomes were produced either in the forms of the modified regulations or new courses, or a big number of newly trained teaching staff, as well as technical facilities that each university within the consortium exploits. Among the outstanding achievements of the project the dissemination activities were overviewed which encompass 19 types of various promotional events or measures targeted towards raising awareness of the project outcomes among a wide range of the participants.

Activity 5.3. introduces the analysis of the kick-off conference where 54 participants took part, and 36 of them sent their feedback which further were analyzed. The Kick-off established common goals, re-iterated the purpose of the project, and got everyone an excited and encouraged timeline on how to achieve a step-by-step success. 3 of 15 partner institutions had an experience of working together within another very successful project "ARMENQA" "Implementation of National and Sectorial Qualifications Frameworks in Armenia" which was a TEMPUS project a three-year project of national importance (2014-2017) leading to the implementation of National and Sectorial Qualifications Frameworks (NQF and SQFs) in the Republic of Armenia. The Project was financed by the European Commission in the framework of the European Neighbourhood Policy[3]. These are NCSRHE - National Center for Strategic Research in Higher Education – Yerevan, Armenia and Linkoping University, Sweden, which is good way of the use of the previous experience of the partners in a new context with new objectives which are relevant to the current higher education context of education systems in Eastern Neighborhood Countries.

Activity 5.4. focused on the quality of all the WPs of the project. Each WP is analyzed separately by bringing the lists of the events and the activities done within them as well as this section contains all kinds of materials related to trainings at EU partner institutions and in-house trainings at Armenian, Georgian and Belarusian Universities. By including a variety of instructional methods and learning activities for interactive and activating lectures, trainings instructed and guided the teacher from partner countries on how to use a digital platform for online teaching, in general, and on how to use various pedagogical tools to bridge efficiently the learning goals of the teachers with the learning outcomes. It has a very big further impact creating potential, as any time when needed, these trainings may "travel" from one university to another, they can also appear in new context to vocational be used at colleges and schools where trainings on demand may be organized to introduce the innovative tools and encourage the teachers apply them to their teaching context.

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[3] http://armenqa.am/project/aims-objectives/

The Activity 5.4 embraces the External Quality Control which is summed up in the current report with a broad focus on all the strong sides of the project, its achievements as well as recommendations which may be utilized in case the project has its continuation or in different other formats where the project products may well-used .

WP 6. Dissemination and Exploitation[4]

This work package should cover the following issues: why, what, how, when, to whom and where disseminating results will take place, both during and after the funding period. The activities were planned according to the Dissemination Plan where the overall communicative strategies, academic and administrative staff of universities are defined, especially those that involved in T&L as well as teaching staff development activities, - students of universities, - higher education expert community, - public authorities, and general public are selected as target groups. Specific objectives related to different target groups, main activities that will take place covered by the dissemination plan, Indicators of achievement of the communication objectives as well as human and financial resources also specified in this WP.

From the overall list of the activities, information on the 6 press conferences and one of the interviews is not available on the website, and from the communication with the project coordinator it has become clear that they were not held because of the COVID-19 restrictions. The official leaflet of the project is a very comprehensive document that introduces the key aspects which can help the readers to understand the methodology, partners' framework, the precise objectives, which were planned to be achieved in the time given. The leaflet is grounded on the research and also logos of the universities and participating organizations, flags of the countries the members of the consortium come from, as well as visually focused on some key elements of the modernized teaching and learning such as trained teaching staff, award programmes for excellence in teaching and learning, innovative teaching courses, etc., which, in my perception should be in the focus of the universities all the time in case they want to make a substantial improvement of academic programmes as well as the overall quality of higher education.

The WP consists of 5 activities:

Activity 1 covers the action related to project website creation and exploitation.

The project website is very well designed and structured, it is very easy to reach any information in one or two clicks, the only drawback of the site is that the search window doesn't work well which means that it is a bit difficult to get an information with the help of the key words that may be typed there to facilitate the speedy access to the documents or other type of the information.

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[4] http://printel.am/uploads/page/pdf_en/PRINTeL%20Dissemination%20Plan.pdf

The website provides information on the start, progress and completion of all the events planned within the project. The colour structuring was done with the use of the colours of the logo of the project which make people feel synergy between all the major and minor things which were planned by the project team.

We would like to evaluate the website of the project from different perspectives: human-computer interaction, document design, as well as a user-focused perspective. The users with all kinds of backgrounds visit a website with a range of different goals. During their visits they navigate to various pages, using different routes to reach the information, for answering varying questions.

The website of the project covers an extensive amount of web pages with information about a wide range of topics which are connected with the project and introduced in the sections and subsections of the website.

The interface types are very simple and easy for the use by a wide range of people for different purposes. The sizes of the documents are not big and they are all easily downloadable, functionality, navigation and website performance level is extremely very high which is one of the strongest points of the PRINTel project. The validity of the information is also very high which contributes to the reliability of the overall project outputs/outcomes gained within the four years of the project implementation. The website of the project also contains information on the upcoming events.

Activity 6.2. focuses on publications, perhaps one of the most important outputs of the project. It contains 6 newsletters, 5 brochures, as well as Teacher's Handbook on Innovative and Technology Enhanced Teaching and Learning. The newsletters report on the progress of the project as well as introduce different events Newsletter 1 introduces the message from Prof. Budaghyan, Coordinator of the Project on behalf of the team and his personal behalf, with a clear plea as well as appeal to benefit from all the possible outcomes through active networking, cooperation as well as a big foresight to make the most of the project for all kinds of higher education beneficiaries across the globe.

Numerous pictures from the events emphasize personality of the project which is also one of the strongest aspects of the project dissemination– it is very well seen in which capacities and events the participants were involved which increases the visibility of the project done within a four-year period, and later these people can be addressed by other stakeholders in case need similar trainings for their institutions. Newsletter 1's chronology focuses on the events of 2018, and also gives a feedback on the Needs Analysis report which is very good for those who wish to understand the state of things within the first year of the project implementation.

Newsletter 2 facilitates the job of the External Evaluator to understand the procedures the universities undertook for selecting candidates for ToT (trainer of trainers training) at five EU Universities.

- 5-9 November 2018, FH Joanneum University of Applied Sciences of Graz (Austria), 18 teachers from Armenia, Georgia and Belarus took part in the course;

- 12-16 November 2018, the University of Porto (Portugal). course in Video as a Learning Tool for Teachers and Students/ Video Lecturing and Promoting Interaction in the Classroom;

- 12-16 November 2018 at KU Leuven (Belgium). Up to 20 teachers from universities;

- on 3-7 December 2018 at the University of Linköpings (Sweden) Active Learning in the Flipped Classroom.

- on 10-14 December 2018 at the University of Barcelona (Spain). Up to 20 teachers: Active learning & ICT-enhanced teaching: M-learning & gamification.

It is worth mentioning in our report the teachers at all the HEIs went through rigorous selection procedures which were transparent and purposeful and which is another added value of the project in terms of spreading the key elements and values of democratic citizenship within partner institutions. Such procedures as the announcements on the ToT courses were published at each participant university websites, as well as sent out to the e-mail addresses of all teaching staff members (July 2018); Each PC HEI worked out specific criteria's for selection process, In some PC HEIs a special examinations/tests were organized to assess the level of English and ICT skills of candidates; the candidates applied and presented the required application documents (beginning of September), and then took an interview (end of September); the selected candidates signed an agreement with the PC HEI with regard their obligations during and after the TOT course. Particularly, each ToT candidate took responsibility to train at least 10 colleague teachers after coming back from ToT. In total of 260 teaching staff members from all PC HEIs applied to participate in the 5 ToT courses, from which 96 were selected (The ToT courses were delivered/ conducted from 5 November to 17 December, 2018. I would say that this is another outstanding achievement of the project to manage a very transparent selection procedure for selecting ToT candidates. This issue was mentioned by all the partner institutions during our face-to-face and online meetings.

Newsletter 3, prepared by NPUA, releases the information on the in-house teacher training courses organized at 9 partner countries' universities in February-March, 2019, for developing innovative and technology-enhanced teaching and learning skills. In YSU -160, NPUA - 110, VSU - 60, ISU - 150, in GTU - 110, BSU - 150, BrSTU - 110, YKSUG – 60 teachers were retrained. The trainees learned about the role and effectiveness of active learning in the teaching process, and how to integrate it in the teaching process at their universities.

Along with the good content and layout, Newsletter 4 uses a concise style for introducing the information on the International Conference-Workshop which was held at Yerevan State University on 16-17 May 2019 entitled "Innovative teaching and learning in Higher Education Institutions", dedicated to the 100th anniversary of the foundation of YSU. The newsletter disseminates the content of the event as well as provides feedback of the participants. The inclusion of the personal feedback of the participants specifies the impact of the event and the project on the individual level. Both the experts from the Programme Countries and the representatives from 9 PC universities contributed to the success of the event.

Newsletter 5 disseminates the results of WPs 2.3. (Regular TT courses at TSDCs (Adoption of TT courses - 2019/2020 academic year), 2.4. "Piloting Innovative T&L Methods in PC HEIs Curricula" (Subject courses with innovative T&L methods/elements delivered to students - 2019/2020 academic year), 2.5. "Students Feedback Reports" (Development of students feedback reports to determine the level of students satisfaction on the new T&L practices using innovative technologies by the lecturer) and 3.6. "Operationalization of the VATL" (OERs with innovative and technology-enhanced T&L methods/elements - created and uploaded in the VAT portal).

Numerous training courses were organized for the teaching staff within the WP.2.3 ("Regular TT courses at TSDCs") for the adoption and systematic usage of the TT courses in 3 partner countries' (Armenia, Georgia and Belorussia). In total 1315 teachers at 9 higher education institutions' TSDCs were trained to develop innovative and technology-enhanced teaching and use innovative teaching technologies in their daily teaching practice. As it is clear from the newsletter, the trainings started face to face and then due to the pandemic, were held online, via various online platforms, including Zoom, Google Meet, Moodle platforms, etc.

Within WP.2.5 ("Students Feedback Reports") the students' feedback was collected at each PC university, and bilingual reports for each country (Armenian, Georgian and Russian) were elaborated based on it. In total 122 Open Educational Resources (OERs) with innovative and technology-enhanced T&L methods/elements have been created and uploaded in the VAT portal for the wider use by academic communities and students interested in innovative teaching and learning within WP 3.6 ("Operationalization of the VATL"). Among them are 104 OERs from partner countries' HEIs and 18 OERs from European HEIs.

– Newsletter 6 explores the outputs of the following activities:

– Technology-Enhanced Active Learning Classrooms and Lecture Capture Studios at PC HEIs (Act. 1.6 and 3.3)

– Virtual Communities of Teaching Practice on VATL Portal (Act. 4.1)

– The 1st Annual Forum on Innovative Teaching and Learning «Issues and Perspectives of Digitally-Enhanced Teaching & Learning in Higher Education» (May 20th, 2021)

– (Act. 4.2) PRINTeL's Social Networking Services and (Act. 4.3) Adoption of Incentive Policies & Award Programs for Innovative T&L at PC HEIs

– (Act. 4.4) Innovative and Technology-Enhanced Teaching and Learning Teacher's Handbook (Act. 6.2)

– PRINTeL Master Classes «Teachers in Digitalized Virtual Space» (September 8th, 2021) (Act.6.4)

The newsletter provides a tour around 9 universities for introducing Active Learning Classrooms (ALC) and Lecture Capture/Recording Studios (LCS) in 9 PC universities. In our perception, they can further be used for developing new good practices which may ensure the

sustainable use of the centres and enable them to be exploited by all the members of the teaching staff of PC universities. The newsletter also creates an increased awareness of the results of the project, ensures the sense of sustainability for the project outcomes. It is also well structures and introduces the information on the virtual communities on the VATL portal. This is a very efficient tool for the participants of the virtual community to express their opinion and positively contribute to the formation of the group of experts on the use of the active learning pedagogical tools and methodologies in teaching practice. The newsletter also emphasizes the importance of the extension of the discussion on the platform for further forming the association of the professionals which will be a good asset of the project. The purpose of the virtual pedagogical community is to establish interpersonal communication between teachers and to create an association of colleagues for the exchange of professional experience. The project also may create platforms for the scientific community, authorities and policy makers, media and general public to discuss active-learning-related issues.

The 1st Annual Forum on Innovative Teaching and Learning entitled «Issues And Perspectives of Digitally-Enhanced Teaching & Learning in Higher Education» (May 20th, 2021) focused on expectations posed on the teachers in the pandemic and also discussed student assessment and examination issues on how to evaluate student performance online which is a very complicated issue with many teachers working online across the world. Creating synergy with the urgent topics that are relevant with the global academic community is another impact as potentially all the interested people may benefit from this project outputs/outcomes.

The outcomes of the activities introduced in this newsletter play a decisive role in ensuring the continuity of all the processes which started within the frames of the project and will go on upon its completion. The main accent was put on the creation of the resources, increase of the number of the teachers that can benefit from the resources created by the project as well as the universities that can explore new opportunities of digital technologies and improve the quality of their teaching and learning.

The continuity of the processes and a wider impact may also be reached by creating online newsrooms at each PC university, and keep updating the wider academic and non-academic community on monthly or annual basis. All the information in the forums on the VATL portal is being archived and the significance of the project will raise in case the experts enrolled in the project go on with their further observation and help to reform curricula in the countries, improve the quality of study programmes, make the national education systems in these three partner countries more attractive both for national and international students.

WP 7. Management

WP 7 is very well documented. WP 7.1. It introduces Management Bodies who successfully launch, developed and completed the Printel Project. The WPs and Lead Partners were very well arranged. Binary management was chosen correctly for this type of multi-content programme: each WP has two Lead Partners that were managed for implementing and reporting

on the activities. Besides, collaborative management is an added value of the project as it increases the efficiency of management by creating the managerial broad basis within the project. Collaboration is necessary for supporting decision-making where substantial number of people are directly or indirectly involved to handle the realization of 7 WPs of the project. Each WP is led by 1 EU university, and 1 partner institution from Partner Countries. The Project Coordinating Committee is also very well selected and as it has become clear from the Final Conference that they perform different roles and responsibilities during a very difficult time of a project implementation with a lot of activities moved online. In fact, many planned activities were reconsidered and adapted to the COVID-19 pandemic situation with the change of a focus, tasks, locations, people so as to ensure the project success without damaging the overall idea of the project. In fact, in some cases double work was done to replace face-to-face events with their online counterparts but with the elaboration of a new framework of tools that was used. The coordinators displayed the highest level of creativity to develop new schedules and activities which were as detail-oriented as the face-to-face activities overseeing all the possible complications of their realization. Thus, in spite of the stress and shock, the coordinators keep the wheels of the project going which ensures the efficient management of the project. The role of the Project Management Team is worth mentioning too, as they had a vision of the project which was transferred to all the partner universities which superbly perform all the planned activities and reached the goals with a very large impact on different stakeholders of higher education in three different countries of Eastern Neighborhood.

Activity 7.2. contains reports on the coordination meetings. The project has one kick-off and 4 coordination meeting had a very well developed agenda for bringing the activities, deliverables and deadlines together and planning the further steps of the project. Even the minutes of the coordination meetings have a larger impact in terms of cultivating a culture of open accountability of all the procedures of the actions which increases the trust among the partners.

Activity 7.3. highlighted the importance of meetings oriented at information and experience exchange which was organized through a site visit to three Georgian partner universities. The participants of the event particularly underlined the fact that the activities of EU partner universities should be elaborated as much as possible in order to maintain the continuity of further actions. The issue of signing joined declarations with the EU partner universities was emphasized. The continuation of collaboration with the EU partners upon the completion of the PRINTel project was constantly highlighted during all the life frame of the project, as the universities can benefit from many new opportunities.

Activity 7.4. is focused on the external audits to objectively assess all the outcomes of the project as well as introduce recommendations for the further activities.

The distribution of the project structure into WPs facilitates purposeful implementation of all the activities as well as facilitates the meaningful assessment of all the work done by the external evaluator of the project.

On the whole the structure adopted within the project promotes to:

1. The definition and clarification of al the activities and tasks;

2. Assignment of responsibilities of all the partners within the project;

3. Scheduling and the use of synergies between the activities and the tasks and avoiding redundancies;

4. Creating mechanisms for the control of the deadlines for all the activities and the tasks of the project;

5. Creating the atmosphere of trust and transparency throughout the lifetime of the project.

Thus, from the analysis of the Working Packages and the activities it has become obvious that all the actions are very well completed and the objectives reached.

All the expected outcomes have been reached, required outputs have been delivered in due time and were published on the PRINTeL website.

Outstanding achievements of partner universities and things to be improved

Seven meetings were held from July 29 to October 7, 2021 to get the feedback from the partner institutions of the consortium. The questions addressed to the universities were around such topics as the outstanding achievements, problems, transparency, cooperation and impact issues, and they helped me to go deep into the details at first hand. My primary goal was also to assess how open the partners were throughout all the activities, and this is an important side of any EU-co-founded project for implementing the democratic principles and values into the core of all the organizational procedures of any Erasmus+ CBHE project.

In my strong perception, in a broad sense, the quality of education is connected with democratization of the higher education, and for achieving it the universities should intensively cultivate it and make it as their main strategic direction.

The whole project is about liberating the higher education, making it more autonomous and the teachers – the most influential key players of the education process. The greater involvement in the TSDCs was mentioned as one the strongest achievements at all the partner institutions. However, the project has had a clear agenda to expand digital pedagogical tools and make the teaching and learning process more attractive and rewarding for the students who are the immediate beneficiaries of all the improvements in higher education. However, the upgrade of the teaching competences had a direct impact on their professional and career development and many trainers at YSU, VSU, TeSaU and YKSUG have been job promoted at the universities and even appointed to top ministerial positions which is a good opportunity to push the ideas of the project forth, by establishing local mechanisms for the more targeted outreach of the results of the project across different types of universities as well to other types of education institutions.

The change on the policy level is anticipated as Karen Trchunyan, Deputy Minsiter of Education, Science, Culture and Sports, who was one of the ToTs of the operation, at the meeting with the Armenian national team of Higher Education Reform Experts in July, 2021, highlighted this issue and encouraged the experts to organize training on the soft skills of the students who need them to be able to make decisions, get adapted to different life and career situations very smoothly and be competitive on the labor market.

This issue is already institutionalized at partner universities as they developed their strategic plans as well as the plans of TSDCs with the focus of the PRINTel project deliverables such as improvement of teaching and learning, preparation of video lessons and courses, strong cooperation with the PRINTel partner institutions for launching new CBHE projects. An another good point about the project is that new institutions are getting interested in the project results, and especially the topic of designing a video lesson is attracting people to benefit from it on the local and international level.

All the 9 partner institutions mentioned that the work has been done in line with their university priorities; none of them was brought to the project by chance.

Yerevan State University trained approximately 300 teachers to work with the use of the active learning tools and methodologies.

The TSDC of YSU implemented 5 courses in its curriculum, of them 2 have become mandatory for the attendees of the courses: Hybrid/Blended Teaching and Learning and the Flipped Classroom and the other three are elective: Active Learning with the Focus on Technology Enhanced Collaborative Learning

Video as a Learning Tool for Teachers and Students/Video Lecturing and Promoting Interaction in the Classroom, Active Learning and ICT-Enhanced Teaching: M-Learning and Gamification.

During the meeting with the representatives of the university enrolled in Printel project two issues were highlighted which are still needed to be improved: the quality of WiFi is very low at the university and all the ideas and tools elaborated in the project would remain on the paper in case the WiFi quality didn't improve in all the university buildings where classes are conducted.

Within the activities of the TSDC consultancy services were planned but not developed as COVID-19 pandemic overshadowed the urgency of the step, though informally this component is being realized on the free-of-charge basis, and it was extensively used throughout the time when the university was moved to teaching and learning on the digital platform.

The National Politechnic University of Armenia also elaborated a very well defined operational plan with the immediate tasks to be implemented in 2019-2021, and several PRINTel courses have become mandatory for the University teachers, and the total of 30 credits each university teacher should pick up which is a mandatory prerequisite for contracting them. NPUA also integrates the representative of Gyumri branch of the university for making a wider impact and reaching geographically more teachers that are involved in teaching across the university study programs. During 96 in-house trainings 1750 teachers were trained and more than 800 students benefited from the use of active teaching and learning methodologies in the classroom.

NPUA had his own set of online courses which had been established long before the start of the PRINTel project and as a university with better experience it helped the other institutions to prepare the VATL videos. The video-courses of theUniversity dated to the pre-Printel time are available on the university website and accessible on all the territory of the university without WiFi connection. This format is worth to be further adopted for VATL courses so as to make them accessible from the universities without the link to the internet. As it was already mentioned the university adopted financial incentives for awarding the winners of the best innovative teacher contest.

Another strong component of the TSDC of NPUA is that among its immediate duties is to identify deficiencies of the professional competences of the teaching staff and finding solutions for them as well as to help teachers to overcome professional stereotypes and develop new teaching competences. As for the problems that hinder more efficient integration is the resistance of some teachers to go through these trainings and learn how to use the technologies in the classroom. Another drawback is that not all the classrooms are technically equipped to allow the teachers to shift to the new teaching mode with the extensive use of the technologies. However,

the impact of the project on the university is immense in terms of overcoming deficiencies, stereotypes which in the long run will make a bigger and more substantial cumulative effect on the quality of higher education at the university by providing the local and the international market with high level graduates which are equipped with advanced skills and competences to succeed in the more demanding world. The foreign language barrier is also still a case for integrating more professors in CBHE and other international programmes.

Vanadzor State University is a regional higher education institution with good traditions of the involvement in Erasmus+ CBHEs. During the COVID-19 time the university and its ToTs turned into an antenna organization for many schools and vocational institutions in Vanadzor to provide trainings to those who had problems with teaching online as it managed to provide a sufficient help to the schools and institutions. VSU mentioned one of its strongest points is purchasing of the equipment for video classes which sufficiently increased its capacities. Many of the ToTs have had a job promotion over the life-time period of the project.

Belarusian State University has an outstanding number of publications based on the project developments and outcomes. It also integrates Educational and Methodological Laboratory of Innovations in Education to conduct training seminars together with the staff of the Faculty of Advanced Training and Retraining. The involvement of the laboratory in the training significantly increased their efficiency and contributed to the use of a more content and research based approach for making a bigger and more sustainable impact. Another significant outcome of the project for BSU is that the number of course available in Moodle and the users increased 7500% and innovative competences were broadly developed throughout trainings and master classes.

The project is very well introduced at the website of Brest State Technical University which has links to all the ToTs with the participation of the trainers from BrSTU. The website contains pictures from different events which facilitates the input of the university in different activities of the project. The only drawback which is worth mentioning is that the information is not available in the English language which somewhat restricts wider accessibility of the information especially for English speakers across the world. Brest State Technical University has an outstanding number of publications based on the project developments and outcomes which increased dissemination of the project and also fosters university research on the relevant issues of the university development connected with innovative teaching and learning:

1. "Towards higher education - an innovative approach" Elena Sokolovskaya, Zarya newspaper September 28, 2018

2. "Development of distance learning in Belarus through the introduction of innovative educational technologies (on the example of the PRINTeL project" Change in the educational environment: promoting innovative teaching and learning to improve the educational activities of students in the Eastern Partnership countries ")" Natalia Chetyrbok, Andrey Prorovsky collection of scientific works "Improvement of investment and construction processes in the markets of Central and Eastern Europe", 2018

3. "Innovations in higher education" Olga Ipatova, senior lecturer of the Department of Humanities, BrSTU, newspaper Zarya January 16, 2019

4. "What new learning models are in demand today in universities?" site Virtual Brest Olga Ipatova, senior lecturer of the Department of Humanities, BrSTU 01/21/2019 5.https://printel.am/uploads/page/pdfs/PRINTeL%20e-Newsletter-1.pdf

6. Tools for improving the quality of continuous professional development of university teachers "A.S. Badagyan, V.A. Khaletskiy, N.P. Yalovaya "Actual problems of chemical education in secondary and higher schools", 2018

7. Ryzhuk K., Maltseva D. Popularization of educational services on the example of BrSTU through the introduction of innovative teaching methods / K. B. Ryzhuk, D. I. Maltseva // Collection of abstracts of the scientific student conference "Week of Science" - 2019. - Brest: Publishing house BrSTU, 2019 .-- 98-99 p.

8. N. P. Chetyrbok / Analysis of the system of higher education in the Republic of Belarus and the development of ways to popularize educational services using WEB-technologies // N. P. Chetyrbok // "Education in the 21st century" / International scientific and methodological peer-reviewed journal. - Yerevan, 2019. - No. 1. - p. 221 - 229.

The Printel project contains many questions that needed to be studied ս scientifically clarifies which is a good reason to continue the project and move in the direction of integrating the best experience in the content of higher education programmes.

The information on the website is available on the website of Yanka Kupala State University of Grodno, however, it represents briefly the project aims, methodology, project objectives and results as well as the links to the official site and the project social media. Content of the project as well as the university achievements are not available on the website of the university which undermines the contribution of the university to the project.

However, all the Belarusian universities have a problem to bring the courses already existed on the unified Belarusian education portal to VATL, as the teachers should duplicate their job and create visibility in two virtual spaces at a time.

As a general remark that may be expressed for all the universities as their achievement is that all the project products have become an issue of the overall university responsibility. The integration of the use of active T& L methods into the core curricula of the universities will foster the intensive use of the Project deliverables in one way or another for many years to come with a vision of their permanent modification and adjustment to new educational realities and contexts. ISU teachers during the COVID-19 pandemic created 1200 active courses with 110 000 activities within them which is one the most impressive achievements of the projects in terms of the conversion of theoretical skills and training gained into tangible education products – open education resources which later may be used by other teachers and students. The Professional Development Center for Academic Staff was established within the frames of the project. The Printel Project at ISU is synergized with another project - Learning Optimisation

and Academic Inclusion via Equitative Distance Teaching and Learning (2020-2023) (Love Dist@nce) and two courses were designed for the new project as well as PRINTel methodology is planned to be used to prepare instructional designers for the project.

Ilia State University is the largest university among all the partner institutions of the project, and potentially more than 16000 students can benefit daily from newly implemented active learning pedagogical tools

Georgian Technical University during the project implementation period established a new Teaching Staff Development Center which trained approximately 649 teachers not only from GTU but also from Caucasus International University and from schools. GTU, over the project implementation period realized that all the university courses should be redesigned with the integration of the PRINTel tools and methodologies.

The outcomes of the project at Iakob Gogebashvili Telavi State University were not as many as in other two Georgian, Belarusian or Armenian universities, however, the project participants were actively involved in all the types of trainings, prepare and upload 6 VATL courses. As a regional university, however, it acted as an umbrella institution for training and retraining their staff and students as well as wider public.

Recommendations

"*Unused resources are now human rather than material. They are found in the waste of grown men and women who are without the chance to work, and in the young men and young women who find doors closed where there was once opportunity*" (Dewey, 1939, 12-17).

The capacity building of university teachers is about the increased opportunities the higher education institutions to create and ensure life-long and sustainable success of all their graduates due to well-demanded and competitive university teaching resources, modern infrastructure that make the academic programmes cohesive with the external and labor market labor demands. The quality higher education should ensure sustainable professional and career success of all due to the development of transversal skills and competences that can help an individual to ensure his well-being and life-long success. Today's education is not about rigid thing that is impossible to moderate or improve, but about critical and complex thinking, seeking alternative solutions to resolve real-world problems and being able to adapt and advocate any change.

The PRINTel Project improved the human and infrastructural capacities of three countries and nine universities in the field of teaching competences by:

- improving the quality of human resources through training of many people from different target groups (novel and experienced teachers from different areas)

- modernizing the equipment infrastructure by installing and operationalizing equipment for TSDCs.

- enhancing awareness of the universities and the countries (via different dissemination reports) on the need for improving the methodology for teaching academic courses at the universities with the use of the technologies.

By intensive dissemination activities - workshops, seminar, trainings – the project circulated information on the importance of programme and course level improvement of teaching and learning resources and the teaching staff.

The Consortium gave a valuable contribution to the Quality assurance development at nine universities and three countries, thus preparing the universities for institutional and programme accreditation as well as their international recognition.

The next step of the PRINTel project will be the establishment of the Teaching and Learning Performance Framework for life-long education purposes which will embrace all the processes which are connected with ensuring the quality of education in classroom which will foster awareness, understanding, engagement and integration from both the teachers' and students part into the process of teaching and learning. The process might combine the trained teaching staff, learning resources, learning processes and educational contents.

For making the update and implementation of the active learning pedagogical tools the universities may attract the Chairs on Pedagogies and Methodologies of Teaching specific university subjects as it will help to generate research-oriented practices, pedagogical tools which might work well in specific country and university contexts. The collaboration of the

RSDCs and Chairs on Pedagogy Pedagogies and Methodologies of Teaching specific university subjects might bring a bigger impact as the university teaching staff with the pedagogical and methodological background may better guide the introduction and improvement of the courses in line with the learning goals and outcomes. In my perception for more serious improvement the subject teachers should coherently work with the researchers to modify the current courses as well as to develop new ones.

For long-term sustainability I would like to propose the partner institutions to establish an Inter-University Council for Higher Education Innovative Teaching and Learning (the TSDCs may also undertake this role in each institution) with a right to manage the further PRINTel activities on rotation basis to each of the nine partner universities. The Council beyond programme and course level Teaching and Learning improvement tasks will perform the role of advancing structural reforms.

Conclusions

The PRINTel project is one of the most successful projects which was conducted by Armen Budaghyan, and the team of Yerevan State University, and it is one of the most successful project that was carried out in the Eastern Neighborhood Countries. The degree of the professionalism of the manager makes a significant change. It has pushed ahead the institutional, university government and management, and it has also developed relations with other institutions across the continents.

As a final remark I would like to mention that the universities can't control the weather, but they can design and build a ship, and equip it with a leadership team that can navigate the ocean under all types of weather conditions. The universities that became more flexible and skillful at engaging in projects like "PRINTel", learned how to do it with good critical decisions and timing to benefit from all types of the opportunities and make the future of their universities and higher education systems reasonably predictable.

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About the Author

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Professor Doctor at the Chair of Foreign Languages and Literature at Eurasia International University, Armenia

Member of the Armenian National Team of the Erasmus+ Higher Education Reform Experts

Appendix 1. The lists of Interview Participants from Armenia

Yerevan State University (**YSU**, the face-to-face- meeting took place on 01. 10. 2021)

Participants' List

1. Armen Budaghyan – Printel Project Coordinator, Head of the Quality Assurance Department

2. Marie Santurjyan – Assistant to Printel Project Coordinator, Associate Professor, Senior Specialist at the Quality Assurance Department

3. Artur Avagyan – Associate Professor, Information Technologies Educational and Research Center/ Laboratory of New Learning Technologies

4. Tigran Sargsyan – Associate Professor, Geography and Geology/Service

5. Liana Gabrielyan – Associate Professor, Chair of Chemistry/Physical and Colloid Chemistry

6. Nvard Melkonyan - Associate Professor, Sociology/Social Work and Social Technologies

7. Serob Khachatryan – Assistant Professor, Chair of Philosophy and Psychology/History of Philosophy

8. Lilit Sargsyan – Associate Professor, Romance-Germanic Philology/English language (2nd department)

9. Anna Aleksanyan- Pedagogy and Education Development Center/Pedagogy

10. Ani Simonyan – Assistant Professor, / European and International Law

11. Marina Yaghubyan – Associate Professor, Vice-Dean, Department of Romance-Germanic Philology/English for Cross-Cultural Communication

12. Zhasmen Aghasyan - Head of Department of Additional Post-graduate Education

13. Armine Khachatryan - Head of Professional Development Unit.

National Polytechnic University of Armenia (NPUA) – Yerevan, Armenia (the meeting was held on 15 September, 2021 face-to-face at the Digital Centre of NPUA which is partially (alongside other ERASMUS + projects, equipped by the PRINTel technologies. NPUA organized a dissemination event on its participation in various projects on 30 September, 2021, where introduced the project outcomes.

Participants' List:

1. Ruben Aghgashyan - NPUA project coordinator, Director of the Center for Digital Technologies.

2. Artur Zaprosyan - Director of TSDC

3. Armen Hovhannisyan - Head of Chair of Mining and Environmental Protection

4. Gevorg Margarov - Head of Chair of Information Security and Software Development Department

5. Kristina Khudaverdyan - lecturer, Information Security and Software Development Department

6. Ella Hovhannisyan lecturer, Information Security and Software Development Department

7. Hasmik Hovhannisyan - senior specialist, TSDC

Vanadzor State University after H. Tumanyan (VSU) – Vanadzor, Armenia (the meeting was held face-to-face on 29 July, 2021)

Participants' List

1. Anush Gevorgyan, Coordinator, Head of Education Management Department, Assistant Professor

2. Anna Arakelyan – Assistant Professor at the Chair of Foreign Languages and Literature;

3. Arine Danielyan – Assistant Professor at the Chair of Foreign Languages and Literature;

4. Kristine Ghazaryan - Assistant Professor at the Chair of Economics, Law and Management

5. Vanane Mirzoyan – Assistant Professor at the Chair of Pedagogy and Psychology

6. Hermine Baburyan – Assistant Professor at the Chair of Armenian Language and Literature

7. Mariya Brutyan – Assistant Professor at the Chair of History

Appendix 2. The lists of Interview Participants from Georgia

Ilia State University, Georgian Technical University and Iakob Gogebashvili Telavi State University - Georgia (the meeting was held on the jitsi platform on 23 September 2021).

Participants' list

Ilia State University (ISU)

1. Levan Tsagareli, Full Professor, School of Arts and Sciences

2. Giga Khositashvili, Full-time Lecturer, School of Arts and Sciences

3. Ani Chikhladze, HR chief specialist

Georgian Technical University (GTU)

1. Devi Khvedeliani - Professor, Head of International Relations Department

2. Nino Zhizhilashvili - Assist. Professor, International Relations Department

3. Boris Gitolendia - Assoc. Professor, Faculty of Transportation and Mechanical Engineering

4. Tamari Kupreishvili -Associate Professor, Faculty of Law and International Relations

5. Nino Kholaushvili - Associate Professor, Faculty of Law and International Relations

6. Dali Sekhniashvili -Assoc. Prof., ToT, Faculty of Engineering Economics, Media Technology and Social Sciences

7. Darejan Tsutskiridze - Assistant Professor Faculty of Engineering Economics, Media Technology and Social Sciences

8. Natia Kochladze, Associate Professor, Faculty of Architecture, Urban Planning and Design

9. Liza Amilakhvari, Associate Professor, Faculty of Engineering Economics, Media Technology and Social Sciences

10. Tamar Loladze, Associate Professor, Faculty of Chemical Technology and Metallurgy

Iakob Gogebashvili Telavi State University (TeSaU)

1. Nino Korinteli - Chief Specialist of International Relations Office - Project Institutional Coordinator.

2. Nino Dzamukashvili - Associated Professor- Researcher/trainer.

3. Sophio Arsenishvili - Invited Professor - Researcher/trainer.

Appendix 3. The lists of Interview Participants from Belarus

Belarusian State University, Brest State Technical University, Yanka Kupala State University of Grodno – Belarus (the meeting was held online on 23 September, 2021 on the jitsi platform).

Belarusian State University (BSU)

1. Natalia Mantsurova – Dean, Faculty of Advanced Training and Retraining

2. Konstantin Mulyarchik – Associate Professor, Department of Telecommunications and Information Technologies of the Faculty of Radiophysics and Computer Technologies

3. Alesia Kuzminava – Head of the TV and Radio Department, Faculty of Journalism

4. Natallia Sayanava – Senior Lecturer, Department of Periodical Press and Web Journalism, the Faculty of Journalism

5. Galina Pusenkova – Senior Lecturer, Department of English for Natural Sciences, Faculty of Social and Cultural Communications

6. Olga Vologina – Senior Lecturer, Department of English for Humanities, Faculty of International Relations

7. Alla Zankovec – Senior Lecturer, Department of the Russian Language, Philological Faculty

Brest State Technical University (BrSTU)

1. Natallia Chetyrbock - Assistant Professor, Department of World Economy, Marketing, Investment; local coordinator from BrSTU

2. Andrei Prarouski - Associate Professor, Head of World Economy, Marketing, Investment Department,

3. Tatsiana Shalabyta - Assistant Professor, Department of Concrete Technologies & Building Materials;

4. Pavel Kachurka - Assistant Professor, Department of Intelligent Information Technologies;

5. Irina Prijmachuk - Associate Professor, Department of Accounting, Analysis and Audit

Yanka Kupala State University of Grodno (YKSUG)

1. Darya Shpak – Head of Department, Educational and Methodical Department for Quality Management of Education

2. Alesia Bialko - Sector Manager, Sector of International Project Activities

3. Aleh Kaliaha - Head of Laboratory, Educational Innovation Laboratory

4. Natalya Valko - Assistant Professor, Department of General Physics, Physics and Technology Facult.

Appendix 4. The lists of Interview Participants from EU

EU partners - (online meeting was held on 7 October, 2021)

1. Janerik Lundquist – Doctor of Engineering, Senior Lecturer, Department of Management and Engineering (IEI), Linkoping University (LiU), Sweden