

Engaging Economics and Traffic Engineering Students in Community Issues Using the MultiCreation Approach

RENATA PETREVSKA NECHKOSKA, DANIELA KOLTOVSKA NECHOVSKA, MARJAN ANGELEVSKI

Abstract The effective teaching methods for the next generations of pragmatic students and teachers are evolving towards much greater involvement on all sides, attempting to bridge real life and the academe in many innovative ways. After introducing and validating the MultiCreation approach in teaching/learning for business-academia collaboration, where multiple disciplines, diverse profiles of students, professors and managers took various roles to address relevant business issues, we were encouraged to expand its applicability beyond the business world - into societal problems. We retained the problem-based and participatory learning, but shifted the positioning of the problem towards traffic safety of children in primary schools - incorporating economical, project, managerial, traffic engineering, logistical, regulatory and governance issues. By including two primary schools, collaborating with their principals, advisory teams and teachers, as well as children and parents, in two different cities, we aimed to provide complete research, engineering and education for the stakeholders so that the schools could just hand in the documentation to the relevant municipal bodies to be acted upon effectuation. The involved students came from two faculties - of economics and traffic engineering, steered by three university professors on the subjects of project management and basic and advanced techniques for traffic management. The blended learning components took place as prescribed in the MultiCreation approach, during two semesters of two academic years. combined countermeasures and solutions. The MultiCreation approach has been enhanced in its components and workflow and its effectiveness is validated in multi-stakeholder environment of direct and indirect educational beneficiaries.

KEYWORDS: problem-based learning • participatory learning • MultiCreation approach • Traffic Engineering • Community-Academia Collaboration

JEL: A12 Relation of Economics to Other Disciplines, D78 Positive Analysis of Policy Formulation and Implementation, O35 Social Innovation, R41 Transportation: Demand, Supply, and Congestion - Travel Time - Safety and Accidents - Transportation Noise

1 Motivation and background work

Establishing functional bridges among disciplines, industries, countries, students, domains, subjects, applications and diverse stakeholders is everlasting - and the goal to facilitate university students to apply their learnings in guided manner have been our motivation to uptake an approach already applied in practice that helps achieve these goals - the MultiCreation approach by (Petrevska Nechkoska and Angeloska Dichovska, 2020). We retained the problem-based and participatory learning, but shifted the positioning of the problem towards traffic safety of children in primary schools - incorporating economical, project, managerial, traffic engineering, logistical, regulatory and governance issues.

Traffic accidents have been harming enormous numbers of people for over a century. For traffic safety policy to be successful, it must have only one goal – protecting the public and community. The public and community must recognize and support this goal (Evans, 2004). This statement sounds very promising, but when it

CORRESPONDENCE ADDRESS: Renata Petrevska Nechkoska, Double PhD, Assistant Professor/PostDoc, Faculty of Economics, University St. Kliment Ohridski North Macedonia and Faculty of Economics and Business Administration, Ghent University Belgium, Tweekerkenstraat 2, B-9000 Ghent Belgium, e-mail: renata.petrevskanechkoska@ugent.be; Daniela Koltovska Nechkovska, Faculty of Technical Sciences, St. Kliment Ohridski University, Bitola North Macedonia, Prvi Maj BB, 7000 Bitola North Macedonia, daniela.koltovska@uklo.edu.mk and Marjan Angeleski, Faculty of Economics, University St. Kliment Ohridski North Macedonia, marjan.angeleski@uklo.edu.mk

comes to reality, it appears to be very difficult to be achieved (at least according to the experience in the area of defining policy instruments, project management and managing traffic safety targets in the Republic of North Macedonia). As the traffic demand increases in and around public schools, concerns regarding traffic safety have been raised. In order to respond to these concerns, traditionally, a law enforcement approach has been taken.

But, is it the law and police enforcement that addresses the traffic safety issues only? After creating and validating MultiCreation approach in academic teaching/learning, the main idea of this paper was to expand its applicability beyond the business world into societal problems in a way that will encourage and inspire individuals to look for new approaches and to be creative in designing appropriate traffic safety solutions (Petrevska Nechkoska and Angeloska Dichovska, 2020), (UKLO for the Community project²) Best practices show that a consistent, integrated, and comprehensive, approach is needed. Implementation of multidisciplinary “4-E approach” (Education + Enforcement + Engineering + Environment) (Fromkin et al., 2004) became ‘conditio sine qua non’ in order to achieve a sustainable and safe transport system, taking care of human lives and the quality of living aiming towards liveability in our neighbourhoods and integrated traffic planning.

After analyzing the “State-of-the-art”, or so-called “Global Best practices” that have successfully demonstrated 4-E implementation in road safety-related projects in many different countries, we were motivated to make a slight diversion from the traditional approach to a new 4-E approach, in designing potential solutions regarding children's traffic safety in the school zones. An appropriate set of problem-oriented solutions, founded on real data collection for different transport system users and project documentation and project management outline as content are presented here.

These activities have enabled collaboration, network, creativity, knowledge, skills and competences (CEDEFOP, 2019) for all stakeholders, achieving synergic effect in addressing (and hopefully solving) rather complex societal issues.

This paper will showcase the underlying methodology we used to enhance the chosen MultiCreation approach for addressing societal issues (ADDIE) and help argument the Action Design Research on project and content generation and collaboration. We also portray the MultiCreation approach for addressing societal issues via its components and roadmap, portraying how it aligns but also how it differentiates from the one used for business issues. Conclusions and future prospects conclude the paper.

2 Methodology

We have taken the MultiCreation approach as baseline designed for addressing business problems via broad, multidisciplinary, multi-stakeholder collaboration (Petrevska Nechkoska and Angeloska Dichovska, 2020) and traced its steps for another kind of problem - societal issue, by involving numerous and diverse stakeholders, two different faculties and three subjects, as well as stakeholders from two towns - distinctive from the basic MultiCreation approach. The instructional design (David Merrill et al., 1996), (Wagner, 2011) and didactics (Tubbs, 2014) that guided us have

² UKLO for the Community Project, Ekvilibrium magazine, Faculty of Economics Prilep, No.28, June 2019, <http://eccfp.edu.mk/files/biltens/ekvilibrium28.pdf>

been used to engage and teach students by problem-based learning by doing, while producing effects for the entire community. The ADDIE model (Kurt, 2017) has been followed to incorporate analysis, design, development, implementation, evaluation in formative and summative sense, complemented with the dual mission of the Action Design Research - ADR (Sein et.al., 2011) in the information systems domain. The project was managed using the DENICA method for tactical management in complexity (Petrevska Nechkoska, 2019).

Here are the ADDIE model components that will enable comprehension of the roadmap we took and how analysis and findings have been generated.

Analysis - A

The analysis stage in this instance was conducted in collaboration with the schools, the faculties and respective subjects and among the participating professors. The positioning of the problem was as follows: Societal problem of traffic safety in the proximity of primary schools for primary school children, in two primary schools from two towns, collaborating with their principals, advisory teams and teachers, as well as children and parents. The students came from two faculties - Faculty of economics in Prilep and Faculty of traffic engineering in Bitola, both at the University St. Kliment Ohridski, Bitola, North Macedonia. The implementation was steered by three university professors on the subjects of project management and basic and advanced techniques for traffic management, out of which one acted as project manager to facilitate the entire project, while the two have carried the subjects, adaptation of instruction and outcomes, as well as the multidisciplinary threads beyond the regular subject matter. The blended learning components took place as prescribed in the MultiCreation approach, during two semesters of two academic years (summer semester of 2019 and winter semester of 2020). The title of the project has been: "UKLO for the community" ("УКЛО за заедницата") using the acronym for the University St. Kliment Ohridski - UKLO to denote contribution to the community in both towns.

This instance of the MultiCreation approach in societal issues enlisted stakeholders from the two faculties from the two towns: 50+ undergraduate students, 3 professors, 50+ primary school staff (administrative and teaching), 50+ parents, 300+ school children, 10+ collaborates (police, municipality advisors, other stakeholders, ...), 2 social entrepreneurship advisors, one alumni network that supported the final event (Western Balkans Alumni Association³).

The main goal of the project was to provide complete research, engineering and education for the stakeholders so that the schools could just hand in the documentation to the relevant municipal bodies to be acted upon effectuation.

Objectives for the students:

- To achieve theoretical depth and practical implementation of the concepts in the separate subjects: project management and basic and advanced techniques for traffic management as well as multidisciplinary cross-fertilisation;
- To enable students to obtain knowledge and acquire applied knowledge in a societal domain

³ Western Balkans Alumni Association, <https://www.western-balkans-alumni.eu>

- To facilitate the students towards analysis and evaluation of a problem - and decompose it using the project management concepts and mechanisms, using broad stakeholder perspective
- To improve the skills of: problem solving, learning by doing, cross-fertilisation, social entrepreneurship, team-work, situation awareness, time management, creativity, innovativeness, adaptability, initiating change, professional communication
- To enable proficiency in virtual teams collaboration along with all necessary tools and techniques
- To enable feeling of belonging and pride for contribution to the society beyond regular student life
- To 'equip' the students with proactive roadmap on social entrepreneurship and project management
- Motivate social entrepreneurship and voluntary contribution to society by the involved professors

Objectives for the higher-education institutions (university):

The ones apprehended by the MultiCreation approach are as follows:

- “Establish subject to subject and teacher to teacher collaboration in multidisciplinary manner
- Trace a multi-stakeholder collaboration focused around a problem, utilizing various resources in a broad and complex ecosystem
- Complement lectures with practical use and applicability
- Referential reputation as competent center for scientifically sound business advice to increase partner network and future revenues
- Promote use of e-learning platform and portals per subject, per project, per study group
- Streamline the focus of different subject towards mutual compatibility - perceivable also by the students” (Petrevska Nechkoska, Angeloska Dichovska, 2019)

Accompanied by the following two objectives:

- Bridge two faculties within a university, addressing same problem from different perspectives as one entity of diverse collaborators
- Build reputation for the university as contributor to the society with tangible projects

Objectives for the schools:

- Engage actively in solving own problems without waiting for central municipal or state-directed action that requires funding and priorities
- Practice integral curriculum (as prescribed by the Ministry of Education)
- Open space for collaboration with universities, parents, neighbourhoods, institutions, citizens on problem-based approach (aside from political and hierarchical context)

Design - D

In applying MultiCreation approach for societal issues, we continued to practice the principles of ‘practice-inspired research and theory-ingrained artifact, reciprocal shaping of the participant and their context, and mutually influential roles of the multi-participant landscape’ (Sein et.al. 2011). The blended learning mashup (Pe-

trevska Nechkoska and Mojsovska Salamovska, 2017) again assists the multimodal collaboration channels, especially needed since the geographic and physical distance has been substantial having participants from at least two towns and their regions. The E-platforms and traditional channels have been present and utilised:

“(1) Moodle as an E-learning platform mainly used for placement of materials and asynchronous, usually one directional teacher-students communication; as well as bi-directionally through student assignments, forums and other activities. The project portal contained all instructions and timeline of developments so that every participant (students, managers, teachers) could always orient, revert, check and project own and team actions

(2) Facebook groups have been used for fast, immediate communication where confirmative response was expected

(3) Storage space in the cloud, USB sticks, ...

(4) Polls, surveys, collaborative writing and asynchronous remote project work by using the Google Sheets, Forms, Docs, and similar tools.

(5) Skype/Viber served as a synchronous remote team communication and

(6) Free mobile apps/messengers for instant messaging have been used for urgent matters

(7) E-mail correspondence and last but not least

(8) teaching and contact hours, as well as the consultations person-to-person, and group/team consultation on-campus” (Petrevska Nechkoska and Angeloska Dichovska, 2019).

Development - D

Complementary to the alignment of the instruction for the subjects, the project entailed actual project management on the core team of stakeholders from all institutions (including students, parents, relatives, neighbors and school children) to be able to go through the respective stages and achieve the expected outcomes.

These are the activities that took place (most important ones, non-exhaustive list):

- Negotiations with the primary schools, on what the problems are and how we could help
- Memorandum for cooperation between the faculties and the schools
- Appointment of persons in charge of communication within each stakeholder
- Enlisting students willing to participate in the project from both faculties
- Administering E-learning platform portal for the project
- Preparing an all-in-one orientational project document for all stakeholders with guidelines on the project, expectations, governing principles and communication rules
- Meeting of the three professors as core team (frequent)
- Kick-off event including media dissemination
- Tracing the stages for group work
- Aligning the subject lecture and lab exercise materials with the project needs
- Drafting specific responsibilities as up to 10 must-haves from each student participant per subject (to be evaluated and graded properly and in relation with the other non-participating students)
- Drafting generic responsibilities for the students (from managerial aspect, professional communication, win-win mindset, ...)

- Drafting a timeline of activities and keeping alert for modifications
- Setting up teams of students from each subject from each faculty as merger between the faculties (teams are consisted of members of both faculties)
- Surveying, interviewing the stakeholders - to report on progress and to engage further on
- Inspiring school teachers to incorporate the issues in the daily lectures
- Organizing final event with all participants
- Organizing PR activities on multiple channels
- Organizing certificates, confirmations for internship and other administrative and logistical issues

These components are taken from the MultiCreation approach for business-academia collaboration, while being enhanced and extended for societal issues applicability.

Implementation - I

The project from idea to realisation lasted for a year - spreading over two academic years (two semesters). The core team of three professors had meetings on regular basis (at least once per week) and the project manager coordinated the stakeholder collaboration, dissemination, logistics, authorisations and all other aspects to make things possible. Consultations with the students have been held on level of subject, but also as teams collectively. The guiding materials and all instruction have been placed on the e-learning portal Moodle⁴, recording all activities from all aspects - serving as good reference point for every dissemination and collaboration. Use of best practices in similar situations has been facilitated, as well as conceptual and implementational activities in the schools, which also got together and aligned accordingly between one another. Parents and neighbours have been surveyed, interviewed, participated in focus-groups, measurements and traffic data obtained on the two locations in duration of a semester. Student mentors from the previous semester have been engaged. All the reports, findings, measurements, data have been placed on the Moodle portal as single point of reference and dissemination. The creativity has been at its best - all stakeholders produced remarkable set of videos, scenarios, tools, promotional materials, workflows, games, lecturing content etc. in order to address the problem together and in collaborative manner.

Specific note from the Faculty of traffic engineering is as follows:

Prior to the development of solutions, a thorough understanding of the issues of all included participants was necessary.

For that purpose, an extensive review of the current road network design around school areas has been investigated, the traffic flow data for vehicles, pedestrians and, bicycles have been obtained by manual count method. Additionally, input from principles of each school, discussions from parents' council members, were analyzed.

The solutions were categorized into two groups:

- (i) solutions that can be applied consistently to every site
- (ii) those that applied to the specific school; both include a successful mix of different traffic engineering measures such as:

- Traffic engineering elements and pedestrians' treatments design,

⁴ <http://moodle.eccfp.edu.mk/course/view.php?id=190>

- Traffic engineering elements and bicycle treatments design,
- Traffic calming measures design,
- “Kiss & Ride System” design for a school zone.

The all above-mentioned measures have been designed and evaluated in the microsimulation environment by using the VISSIM micro simulator for chosen primary schools. Proposed solutions provide reduced conflict points between vehicles and vulnerable users, decreased traffic congestion, travel time, and delay, protects the environment.

Specific note from the Faculty of economics is as follows:

Since the project management processes belong to five major project management process groups (Initiating; Planning; Executing; Monitoring and Controlling and Closing), the main goal of the EFP team members was to perform some of the initiation and planning project management process groups i.e. to prepare management issues of the project documentation and to perform project plan description. Namely, EFP team members were in charge to:

- describe the problem needs and problem justification
- define goals and objectives of the project
- define target groups;
- develop project activity plan with duration of the project;
- define expected outcomes;
- define relevant milestones and deliverables;
- define known risks and how they will be overcome;
- develop a project budget etc.

Evaluation - E

Our insights into the formative and summative evaluation that were used to provide learning outcomes, surveying recent progress, and clarifying prospects for further advance, throughout the project and around the achieved outcome.

The **formative evaluation** happened on a daily basis via communication among all the participants. The students have an opportunity to reflect on and demonstrate their thinking, accumulated knowledge regarding project objectives and goals. The teachers kept all communication channels open 24/7 discussed and reflected answers to the students. Additionally, the teachers are communicated with wider spectra of stakeholders such as policymakers, community, and nonprofit organizations.

Regarding the **summative evaluation**, we gathered feedback about the experience from the project from the students and stakeholders.

Summative Evaluation: Analysis of *student's learning outcomes* and learning objective in the project. The students were asked to fill in a questionnaire of 25 questions in different formats to be able to assess and give feedback of their experience with the project. All 22 students that reached the final stage filled the questionnaire with remarkable statements and insights. The analysis of the questionnaire helped us evaluate the effectiveness of the project, but also the specific aspects of introduced/improved knowledge, skills, competences we aimed for with this project.

The improvement of knowledge to cope with real problems, the application of new technologies for communication such as Moodle, implementation of sophisticated software tools for analysis and evaluation of different solutions, a synergy by incorporating a range of specializing knowledge between different students' profile.... are just some of the answers to which over 80% of students answered positively. Regarding, the most prevailing problems we can emphasize: difficulties in mutual communication and coordination, teamwork and interpersonal relationships; lack of materials and time, as well as insufficient knowledge in the IT domain.

As nine *key benefits* that the students stressed from their active participation in the project are the following (ranked highest according to the number of statements):

1. Development of self-worth,
2. Self-confidence,
3. Critical thinking,
4. Teamwork,
5. Communication skills,
6. Friendships and networking,
7. Practice and experience,
8. New Knowledge (societal entrepreneurship, virtual team collaboration, economical and managerial aspects for technical sciences students and vice versa - technical sciences for students of economics),
9. Satisfaction, motivation, and increased ambition.

Summative Evaluation: Analysis of *multiple stakeholder's opinions and advice*
The school principals, teachers, decision-makers representatives have been present also on the final event where the teams have presented, elaborated and clarified their work, analyses, and innovative solutions, and ceremonially handed as project reports to the school principles. The feedback was remarkable with ambitions for real implementation and fast reaction of municipality policymakers to realize the projects. Policymakers must understand the conceptual aspects of the projects to provide wider community benefits.

3 The MultiCreation approach for societal issues components and roadmap

Considering the "MultiCreation" approach established by Petrevska Nechkoska and Angelovska Dichoska (2020), we have developed a new model for collaboration among different stakeholders (in this case: academia, policy makers, community and non-profit organizations) aiming to address community problems and facilitating value with co-creation. The model is generic, participatory and iterative, made up of three different interconnected stages with connected processes in each phase. (Figure 1).

In this occasion, we are describing the main phases and stages of a mechanism that functions like a funnel, having feedback and connection loops among all stages during the instantiation.

Phase 1: Problem identification

In the first phase, stakeholders, primarily community members and non-profit organizations (in our case the model has been tested with primary schools as non-profit organizations representatives), take into deliberation plethora of identified problems. In accordance with well-defined criteria, they choose the most priority or urgent problem for further consideration.

Phase 2: Solutions identification

Once the priority problem has been identified, the solution(s) for problem overcoming should be generated. Therefore, the second phase begins with brainstorming method for generating ideas and alternative solutions for overcoming the identified problem. In the brainstorming session, representatives of all stakeholders groups mention above, should be involved. Later in the phase, representatives from academia and policy makers, perform in depth analysis and define appraisal criteria in order to select feasible solution. Appraisal criteria can be either quantitative or qualitative, but they should take into consideration at least technical, economical, financial, managerial, legal and environmental issues regarding the solutions proposals. The key deliverables from the second phase are project documentation and comprehensive description of the solution(s) that can be implemented.

Phase 3: Problem solving and solution implementation

The third phase is consist of implementation processes of the project proposal, and should lead towards stakeholder satisfaction. Namely, all stakeholders work together overlapping theirs responsibilities and roles to implement the project. Collaboration and communication among stakeholders is a crucial part of the project implementation. Therefore, those processes require feedback, not only by the community but from policy makers, academia and non-profit organizations as well. Finally, since the model is iterative, the improvement of the implemented solution can be done across the phases and stages of the model. Furthermore, beside adjustment of the implemented project through iterations, the new problem can be address and new solution can be generate and implement.

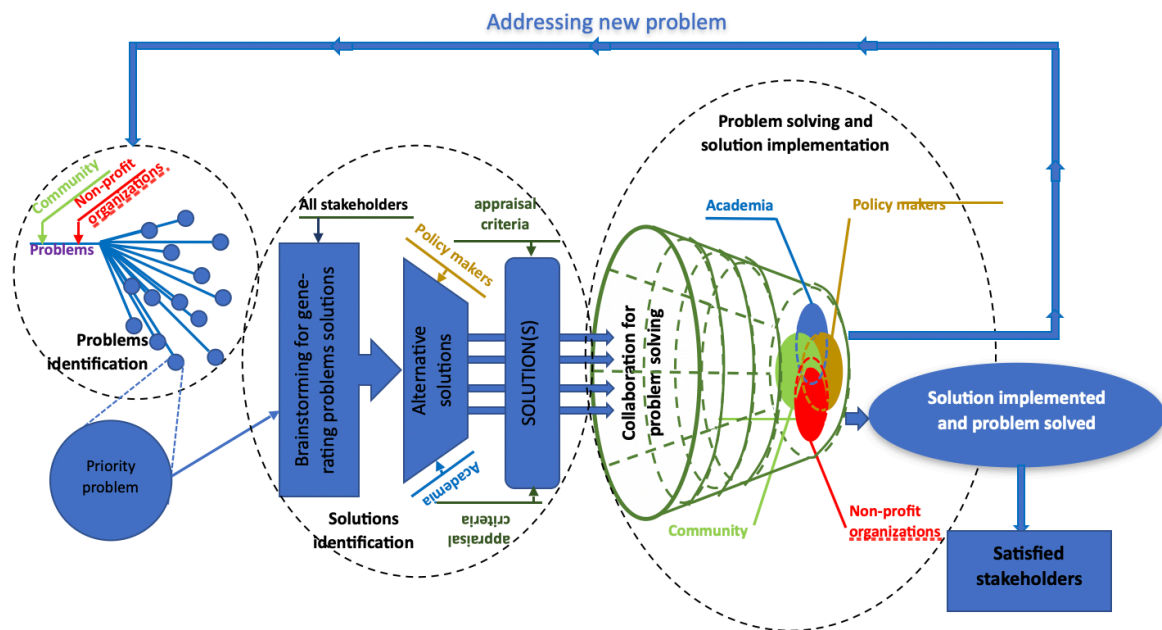


Figure 1. The generic iterative model for collaboration among academia, policy makers, community and non-profit organizations addressing societal issues (Source: Authors)

The *MultiCreation* model for addressing societal issues adheres to the main principles of the approach, but the **difference** it introduces is bundling the stages in phases since **the stakeholder ecosystem is much broader in cases of societal issues, and the complexity increases**. Here are the regular stages and how they align within the MultiCreation for societal issues phases.

Phase 1: Problem identification

Stage 0: Locating the **problem in real environment** and finding business or now institutional, civil society, public, media, ... **partner(s) to collaborate**

Stage 1: Examining the **study programs** to find at least 2 subjects that can address the problems through the curriculum

Stage 2: Responsible **team of professors** address the **knowledge base in the respective domains** and search for possible solutions. This step encompasses also the current scientific domains of the chosen subjects

Stage 3: Informing the **business partner about the research and technology** that will be used to address their problem, examining their aspects of research & technology

Phase 2: Solutions identification

Stage 4: **Organizing** the main components within the HEIs: lectures, lab exercises, students, teams, timeline, documents, consultation, communication

Stage 5: Investigating **existing knowledge**, making foundation for generation and creation of **new innovative solutions and contributions**

Phase 3: **Problem solving and solution implementation**

*Stage 6: **Guiding students*** to apply what they learned in the subjects with what they investigated as possible solutions **towards applying and/or creating new knowledge**

*Stage 7: **Facilitating teamwork*** on all sides, clearing up ongoing problems, maintaining communication channels, **receiving feedback (formative and summative)**

*Stage 8: **Checkpoints with the societal partners*** - briefings, fine-tuning, resolving issues, ... and **finalizing** the project with presentations of the reports and solutions to the initially defined problems, **receiving feedback (formative and summative)**

*Stage 9: **Instigating curiosity and creativity*** at the partner side for application and sensemaking of the novel solutions to existing problems offered by the students/professors

*Stage 10: **Contributing to the instructional design theory and practice***, as well as the **respective disciplines of the investigated problem**, and the **disciplines of the subjects** that took part in the project, **dissemination, multiplication, instantiation**

4 **Conclusions and Future Prospects**

Our endeavour to engage university students and teachers to address societal issues and learn along the way significant subjects such as project management and basic and advanced techniques in traffic management by collaborating in engaged setting has resulted with knowledge and value co-creation for all involved stakeholders. The MultiCreation approach has been appropriate foundation that traced the steps - pointing out the roadmap and components needed, while the team of professors has guided the entire project in specific content- and context-related instantiation. We have been able to face applicability and point out specifics of addressing societal issues vs business problems, as well as very broad range of stakeholders, geographic dispersion, two faculty profiles of students and non-business and non-profit voluntary motivation. On the positive side, the goal to help the societies we live in by investing non-monetary values such as competence, time, professionalism and devotion by the engaged professors, has resulted with motivation and respect by all direct and indirect beneficiaries who were encouraged and acted in creative and innovative ways, not practiced till before the project. On the negative side, in spite of the great effort and intellectual output of handing over complete documentation to the schools that was otherwise to be managed centrally via municipalities, in duration of years and on the expense of substantial public budget, still the pace of implementation and activation of the proposed solutions is very slow. Ultimately, we believe (as authors, researchers, scientists, professors, volunteers) that the project has been achieving improvements for the students and all other stakeholders on many levels, while the tangible societal benefit we aimed for is yet to be seen.

* **Acknowledgement:** This academia-business and academia-societal collaboration has been supported by the Western Balkans Alumni Association <https://www.western-balkans-alumni.eu/about-wbaa/> and https://ec.europa.eu/education/node_en

References

CEDEFOP. (2019). *Overview of national qualifications framework developments in Europe*. Retrieved from https://www.cedefop.europa.eu/files/8609_en.pdf

David Merrill, M., Drake, L., Lacy, J .M., Pratt, J., & the ID2 Research Group. (1996). Reclaiming instructional design. *Educational Technology*, 36(5), 5-7.

Evans, L., (2004), *Traffic Safety*. Bloomfield Hills, MI, Science Serving Society, p.412-425
Fromkin H., Geller R. J, Rubin L., *Safe and Healthy School Environment*, Oxford University Press, 2006

Petrevska Nechkoska, R., & Mojsovska Salamovska, S. (2017). Context-appropriate implementation of blended learning in higher education in Western Balkans. In I. Vrdoljak Raguz (Ed.), *DIEM : Dubrovnik International Economic Meeting* (Vol. 3, pp. 506–518). Presented at the DIEM : Dubrovnik International Economic Meeting, Dubrovnik. Croatia: University of Dubrovnik.

Petrevska Nechkoska, R. (2019). *Tactical management in complexity: managerial and informational aspects*. Heidelberg: Springer. Retrieved from <https://www.springer.com/gp/book/9783030228033>

Petrevska Nechkoska, R., Angeloska Dichovska, M., 'MULTICREATION' – PARTICIPATORY LEARNING APPROACH FOR BUSINESS – ACADEMIA COLLABORATION, TEACHING METHODS FOR ECONOMICS AND BUSINESS SCIENCES. PROCEEDINGS OF THE 3RD INTERNATIONAL SCIENTIFIC CONFERENCE, University of Maribor Press, Slovenia, 2020, DOI <https://doi.org/10.18690/978-961-286-356-2.4> ISBN 978-961-286-356-2

Sein, M. K., Henfridsson, O., Purao, S., Rossi, M., & Lindgren, R. (2011). Action design research. *MIS Quarterly*, 35(1), 37-56.

Tubbs, N. (2014). *The new teacher: An introduction to teaching in comprehensive education*. Abingdon, Oxfordshire: Taylor & Francis.

Wagner, E. (2011). Essay: In search of the secret handshakes of ID. *The Journal of Applied Instructional Design*, 1(1), 33–38.