



RELEVANT ASSESSMENT AND PEDAGOGIES FOR INCLUSIVE DIGITAL EDUCATION



PROJECT IMPACT FRAMEWORK

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Abstract:	RAPIDE impact framework is developed with the aim to help partners to monitor the impact of their work. Based on the theory of change, it defines the main dimensions and moments of RAPIDE project potential to reach the highest impact. The framework will be followed by a Report on the project impact that will be developed by project partners in the last months.
Key words	impact, framework, theory of change

EXECUTIVE SUMMARY

This document includes the overview of the expected results of the RAPIDE project during its lifetime, as well as the monitoring framework for its future impact potential. The partners developed this document to define how they will monitor and measure the impact of their activities and results.

Based on the theory of change, it defines the main dimensions and moments of RAPIDE project potential to reach the highest impact. The framework will be followed by a Report on the project impact that will be developed by project partners in the last months.

CONTENTS

Executive Summary	2
1. INTRODUCTION	3
2. RAPIDE THEORY OF CHANGE	3
2.1 RAPIDE OBJECTIVES	3
2.2 RAPIDE OUTPUTS, ACTIVITIES AND THEIR LINKS (WHAT)	4
2.2.1 Evidences, sources and tools	5
2.2.2 Feedback/data collection	5
2.3 RAPIDE STAKEHOLDERS (WHO)	5
2.4 SCALE, DEPTH AND DURATION OF OUTPUTS (HOW MUCH)	6
2.5 CHANGE ACCELERATORS (CONTRIBUTION)	7
2.6 RISKS	7
3. RAPIDE IMPACT PATHWAY	7
4. PROJECT PUNCHLIST	8
5. APPENDIX(ES)	8

1. INTRODUCTION - RAPIDE THEORY OF CHANGE

A theory of change is the core of the approach to developing a measurement framework. Here it shows what RAPIDE partners want to achieve and how they plan to achieve it, setting out the causal links between project activities and end results. In that way, the theory of change is a necessary basis for measuring project impact because it provides a theoretical framework to allow project partners to assess whether what they do is working as planned, and how it can be improved.

It is expected that the RAPIDE theory of change will have three major benefits:

- **IMPORTANCE** - it will help project partners (and beyond) to understand all the important outcomes, so they can develop a framework that measures the right things. If measurement is not based on a theory of change, it risks not measuring the most important things and therefore wasting effort.
- **CONNECTION** - it will help project partners (and beyond) to understand how the outcomes they seek to influence are connected. Since a theory of change shows what partners are trying to achieve and how they are planning to get there, they can work out whether they are on track to achieve intended outcomes.
- **PROGRESSION** - It helps partners track the progress they make towards the project final goal. Theory of change will show the steps that lead to the end goal and will help project partners to assess their progress towards it, even if the goal itself cannot be measured.

Impacts of RAPIDE project on people and the learning environment can be understood across the following five dimensions:

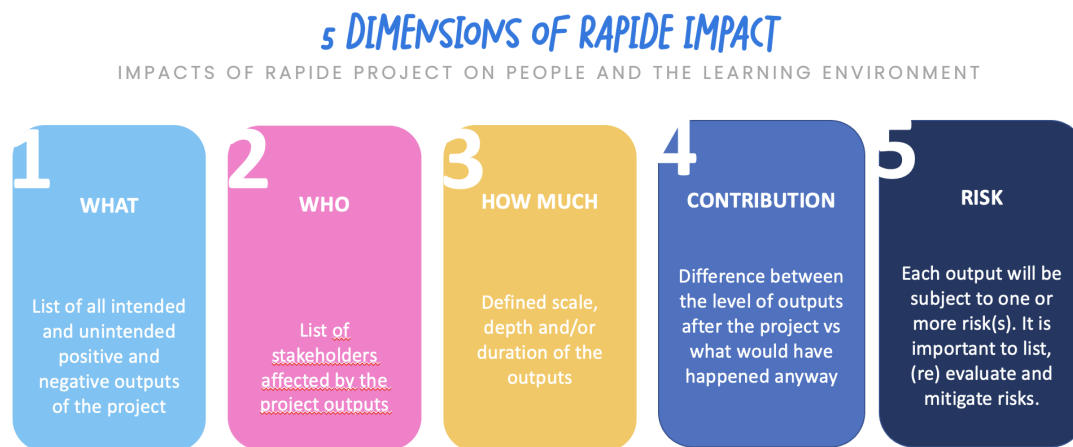


Figure 1. Five dimensions of RAPIDE impact. Prepared by authors according to: <https://impactfrontiers.org/norms/five-dimensions-of-impact/>

2.1 RAPIDE OBJECTIVES

Project „Relevant assessment and pedagogies for inclusive digital education“, approved by Erasmus+ programme - KA2 - Cooperation for innovation and the exchange of good practice, KA226 - Partnerships for Digital Education Readiness started with its activities in March 2021.

Overall objective is to co-create, implement and share innovative pedagogies and aligned assessment for relevant and inclusive digital education in order to deal with the COVID-19 induced and similar crises and to support meaningful digital transformation of HEIs.

Specific objectives:

- SO1: to implement and evaluate innovative and inclusive pedagogies that support student engagement, practical skills development and deep approach to learning in an online environment by digitally and pedagogically competent and confident teachers
- SO2: to support teachers to use relevant and inclusive assessment methods related to innovative pedagogies
- SO3: to support students and teachers in the meaningful implementation of innovative pedagogies in an online environment by means of ethical use of learning analytics with special attention given to students at risk
- SO4: to boost capacity of HEIs for monitoring and evaluating the implementation of innovative pedagogies in online, blended and distant learning and to perform impact analysis of innovative pedagogies on their digital transformation goals

2.2 RAPIDE OUTPUTS, ACTIVITIES AND THEIR LINKS (WHAT)

RAPIDE project started with its activities on March 1, 2021. The activities include management, dissemination and work on four main intellectual outputs:

IO1. Open educational resources and e-course for flipped classroom (FC) and work based learning (WBL);

Start date: 2021-03-01; End date: 2021-12-3;

Leader: THE OPEN UNIVERSITY, United Kingdom

ACTIVITIES :

1. Literature analysis and gathering best practice examples on implementation of FC and WBL
2. Define the teaching scenarios and implementational steps for integration of FC and WBL in an online environment
3. Prepare the showcases on how to implement FC and WBL in different subject areas and educational systems
4. Design of e-course 'Let's get flipped' on innovative teaching approaches
5. Design and preparation of e-course chapter on FC and WBL
6. Preparation of quality feedback form on design, content and transferability of IO1
7. Revision of educational resources according to feedback from training participants

IO2. Toolkit for assessment of students in FC and WBL;

Start date: 2021-05-0; End date: 2022-05-3;

Leader: Delft University of Technology, The Netherlands

ACTIVITIES :

1. Literature review and collation of best practice examples on student assessment (peer and student's project assessment)
2. Define pedagogical specification of student assessment (peer and student's project assessment) in an online environment
3. Prepare the showcases on how to implement peer and project assessment in different subject areas and educational systems
4. Define functional specifications and development of the tool for peer assessment and project assessment for an open source LMS
5. Design and develop e-course chapter on student assessment to support FC and WBL
6. Preparation of the quality feedback form on design, transferability and technical implementation of IO2
7. Revision of toolkit and tool according to feedback from training participants

IO3. Learning analytics for flipped classroom and work based learning;

Start date: 2021-10-01; End date: 2022-09-30;

Leader: Faculty of Organization and Informatics, Croatia

ACTIVITIES :

1. Literature analysis and gathering best practice examples on implementation of learning analytics (LA) in innovative teaching approaches (FC and WBL)
2. Research on student and teacher perspective on learning analytics use
3. Preparation of learning analytics models for teachers and students including data sets and methods for reporting and prediction
4. Defining functional specifications and development of the dashboards for students and teachers for an open source LMS
5. Development of tips and tricks for teachers on dashboard data interpretation
6. Development of guidelines on ethical use of data
7. Design and preparation of e-course chapter on learning analytics
8. Preparation of the quality feedback form on design, transferability and technical implementation of IO3
9. Analysis of data obtained in LMS during piloting and displayed on dashboards
10. Revision of LA models and guidelines for ethical use of data according to feedback from training participants and data obtained in LMS and displayed at dashboards

IO4. Code of practice on impact analysis of innovative pedagogies;

Start date: 2021-07-01; End date: 2023-02-28;

Leader: Goethe University, Germany

ACTIVITIES :

1. Literature analysis and gathering information from the partners about strategic planning and link to innovative TL
2. Preparation of semi-structured interviews with decision makers (level of project partners) about their needs for evidence about efficiency of innovative approaches
3. Development of methodology for measuring impact of implementation of FC and WBL in an online environment on strategic goals
4. Preparation of showcase based on the performed impact analysis on two partner institutions
5. Development of Code of Practice including methodology and two showcases on how and when to implement innovative approaches in online environment and how to link them with the strategic goals

6. Design and preparation of e-course chapter on impact analysis
7. Focus group design for impact of innovative pedagogies on HEIs strategic goals
8. Revision of Code of Practice according to feedback from focus group

2.2.1 EVIDENCES, SOURCES AND TOOLS

Through the project the partners will use the following evidences to ensure the desired impact level:

- 1/developed outcomes and their quality
- 2/developed research papers
- 3/developed networks with target audience, community for change
- 4/developed dissemination materials
- 5/internationalisation of the impact.

2.2.2 FEEDBACK/DATA COLLECTION

In order to enable simple and efficient measuring project impact at different levels during the project lifecycle, the Coordinator prepared a project impact analysis framework (Appendix 1). It is in a form of a simplified maturity model (rubric with domains and levels of achievements) accompanied with measures of verification for different achievement levels. The framework will be applied to primary target groups (participants - teachers and decision makers) at the partner institutions, partner institutions in general, other relevant stakeholders (HEIs and educational leaders) beyond project partnership.

2.3 RAPIDE STAKEHOLDERS (WHO)

The project is expected to have impacts on different stakeholders:

1. **PARTICIPANTS** - for teachers, researchers from partner institutions impact of IO1, IO2 and IO3 will be followed. This impact framework will be used to evaluate the project impact for participants. Each LTT activity (train the trainers) participants will gather data from participants. The same will be applied at the workshops that trainers will conduct at the partner institution. We expect that the level of achievement for trainers will be at least 3 (apply) and trainees at least 2 (be aware of).

In the scope of that verification of impact at the level of apply will include for example at least 10 courses with implemented innovative TL (FC or WBL) and level "evaluate" means that data are gathered from students (and teachers if applicable) about application.

2. **PARTICIPATING INSTITUTIONS** - for decision makers and educational leaders impact of IO4 will be followed. PSC members will assess the level for all 4 domains at the beginning and at the end of the project based on evidence from their HEIs (existing questionnaire, interviews or if necessary focus groups). The project aim is that at the end of the project at all partner institutions there will be a raise for at least one level for at least one of the target groups. It means that at all partner institutions teachers are going to understand and some of that also apply innovative pedagogies such as FC and PBL. Besides that "apply" level related to IO4 means that innovative pedagogies are linked to strategic goals at the institution level: Further level "evaluate" means that the impact of innovative pedagogies on strategic goals are monitored and/or evaluated systematically.

3. **OTHER TARGET GROUPS** - teachers and students (not necessarily from partners), HE decision makers.

4. **OTHER** - policy makers at the HE system level

Impact of the project will be followed through multiplying events, hits at the project web site and use of e-course as well as conference presentation and published papers impact, booklet(s) and newsletter distributions.

2.4 SCALE, DEPTH AND DURATION OF OUTPUTS (HOW MUCH)

To decide on which project outcomes to measure, RAPIDE partners asked themselves two questions:

1. Is there a proven causal link between project outcomes in RAPIDE theory of change?
2. Is it really important for project partners to have impact data on a project outcome?

Partners will prioritise the most important outcomes which will reflect the outcomes that RAPIDE target audience see as important. Nevertheless, they will be outcomes that:

- project directly influence (rather than indirectly support)

- are important or material to the project's main goal.

Within the RAPIDE project impact is expected at different levels:

Project objectives (overall and specific):

- Impact at the stage of overall objective is by definition out of direct control of the project. The measure of impact at the stage of the overall objective goes beyond the project scope and timeframe, since some indicators can be gathered by collecting data through online platforms, project databases, future satisfaction research, databases of research papers and their citation on the conference and in other papers.
- Impact at the stage of specific project objectives (SOs) and intellectual outputs (IOs) is respectively mostly under direct influence or control of the project.

Geographical scale:

Impact is expected within each partner organisation, each region or country that the partners operate in and throughout the EU via the identification and analysis of the innovative teaching and assessment approaches in HEIs.

At local and regional level:

- The benefits for communities where intellectual outputs will be implemented during the project consist of the implementation of the learning opportunities with long-term effects for HE teachers and drive forward the development of innovative teaching approaches in order to generate more quality online teaching environment, better learning experience for students and improved communication channels in teaching and learning process.

At national and international level impact is expected on the following scale:

- Awareness:
 - raised awareness of HEI teachers on benefits and possibilities of use of innovative approaches in teaching and student assessment
 - raised level of students experiencing innovative learning environment
 - raised awareness of policy makers in educational systems at national level on project results and their transferability to other subject areas and to other levels of educational system
 - raised awareness of researchers and practitioners in the field of innovative teaching approaches, students' assessment and learning analytics through presentations of prepared papers at international conferences and publishing in journals (at least 4 professional/scientific prepared papers
 - 2 papers accepted for publishing and 2 submitted).
- Engagement:
 - participation of representatives of different universities and policy makers in investigation of transferability potential of project results to other subject areas, especially in Multiplier events that will be held within the project
 - the IO of the project will be prepared respecting the high transferability potential to different national systems and contexts; it will enable HEI teachers from different institutions to download and use the project results in their every day teaching and enrich the lifelong learning experience
 - active participation of representatives from networks and associations of partnership institutions within different project activities, especially in Multiplier events and Project Final conference.

2.5 CHANGE ACCELERATORS (CONTRIBUTION)

The main change accelerator in the RAPIDE project is the international proactive partnership which enables the project results to have not only international design experience, but also international use. This will enable strong and varied feedback from different systems, environments and areas. Finally, it will end in final results which are adaptable and transferable to different contexts and systems.

Special care during the project quality controls will be dedicated to the check on transferability of the results.

The other change accelerator is the readiness of the partners to adapt the results to be used and implemented not only in live but also in blended and online environments.

Also important is the fact that RAPIDE results will include practical examples for its users that will accelerate the use of the results in real life situations.

Finally, project agenda is designed in a way to include live interactions of project partners and users on numerous occasions which will serve as a strong accelerator that the included stakeholders will use the project know-how and result and provide changes in their environments.

2.6 RISKS

The RAPIDE consortium has considered consortium related risks that deal with (1) underestimation of some tasks, (2) low productivity and (3) low quality of work.

These risks are already minimised during the selection of partners.

Most of them have been selected following specific criteria:

- They are leaders in their areas of expertise
- They are selected after previous successful cooperation, with coordinator or with other trusted members of the consortium
- They all have evidence of a history of successful completion of different projects.

However, these risks will be further minimised and managed by using established methodologies, continuous project planning, monitoring and control (eg. PMI (2017) PMBOK Project Management Body Of Knowledge 6th ed., PMI). Such methodologies are standard practice in the professional work of the consortium partners.

The risk management methodology recommends ongoing control and reports to monitor new risks and to update the partners regarding the status of identified risks.

The detailed list of risks and their mitigation actions are defined in the Project Handbook.

3. RAPIDE IMPACT PATHWAY

RAPIDE impact pathway follows the project lifetime in 6 following steps:

1. DEFINE outputs and stakeholders (before the start of the project, during preparation and in the first few months after the start of the project)
2. DEVELOP results and networks - based on the defined desired outputs and target groups partners work to deliver the results, they meet regularly to discuss, learn and develop - 1st half of the project
3. PILOT and collect the feedback - after the first version of the results partners turn to their target audience to collect feedback for further work
4. ANALYSE and understand - based on the collected feedback from different target groups partners try to understand where is the way for improvements
5. REFLECT - partners create the final versions of the outputs ready to be disseminated and exploited
6. DISSEMINATION and exploitation - partners disseminate, present and exploit the outcomes during and beyond project lifetime

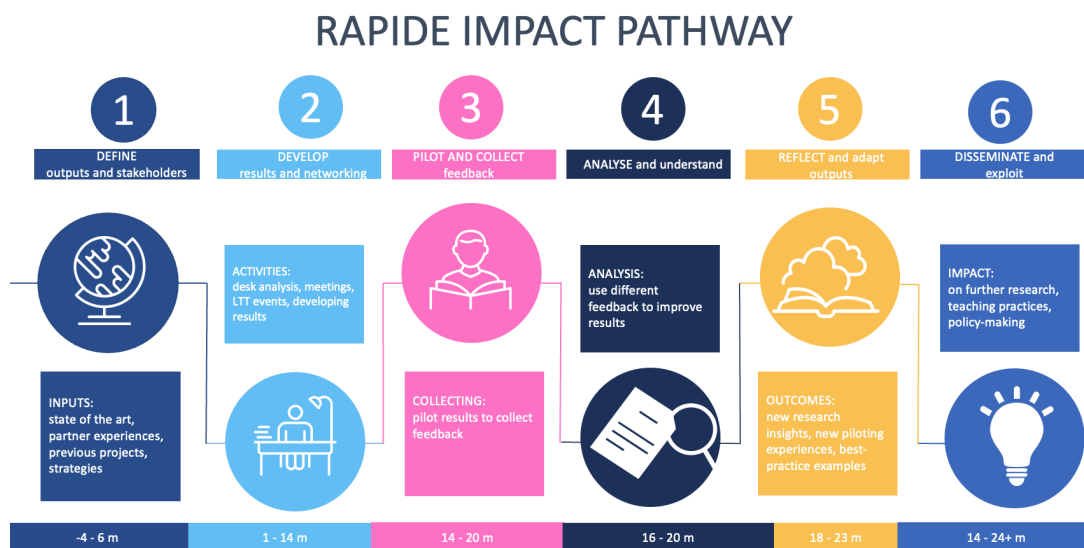


Figure 2. RAPIDE impact pathway scheme. Prepared by authors

4. PROJECT PUNCHLIST

After the project lifetime, the following impact could be possible to achieve:

- 1/ project results are further analysed and published for research community
- 2/ project best practice examples are used by practitioners
- 3/ project training materials and developed MOOC are used for training of future professionals
- 4/ new projects are developed and implemented based on RAPIDE results, especially based on innovative learning design concept.

5. APPENDIX(ES)

APPENDIX 1 RAPIDE THEORY OF CHANGE - TEMPLATE

The following table will be used by project partners to monitor and report the project progress and the achieved impact.

	WHAT	WHO	HOW MUCH	CONTRIBUTION (Impact)				RISK
			Performance (below, in line, over)	Institutional	Sectoral (HE)	General society	Geographical	
IO1 Open educational resources and e-course for flipped classroom (FC) and work based learning (WBL) for use in an online environment with the main aim to provide teachers and students with an original resources designed in a form of research-based practical guidelines for FC and WBL approaches in an online environment and as open e-course. Following the guidelines it will enable HE teachers to successfully implement innovative approaches in online teaching. It will also present models of implementation of WBL in online environments to critical professions e.g health related.	Literature analysis and gathering best practice examples on implementation of FC and WBL	Research community						
	The showcases on how to implement FC and WBL in different subject areas and educational systems	HE teachers Instructional designers HE management						
	E-course 'Let's get flipped'	HE teachers Instructional designers						
	E-course chapter on FC and WBL	HE teachers Instructional designers						
IO2 Toolkit for assessment of students in FC and WBL with the main aim to provide HE teachers with unique and very practical toolkit (e-course chapter) which will include assessment scenarios for the implementation of innovative approaches, mainly peer assessment and project assessment (related to both WBL and FC) in different learning environments and within different HEIs. Further, it will be developed an innovative tool (for an open source LMS) that will provide support for peer assessment and project assessment as described in toolkit. That chapter will be added to the e-course developed	Literature review and collation of best practice examples on student assessment (peer and student's project assessment)	Research community						
	Define pedagogical specification of student assessment (peer and student's project assessment) in an online environment	HE teachers Instructional designers						

within IO1.	Prepare the showcases on how to implement peer and project assessment in different subject areas and educational systems	HE teachers HE management Instructional designers			
	Define functional specifications and development of the tool for peer assessment and project assessment for an open source LMS	HE teachers Instructional designers			
	Design and develop e-course chapter on student assessment to support FC and WBL	HE teachers Instructional designers			
IO3 Dashboard model that supports inclusive FC and WBL will be designed and developed with the aim to provide HE teachers and practitioners with the dashboard models for teachers and students that supports FC and WBL. This result will also include original and valuable tips and tricks for teachers on how to interpret data delivered on the dashboard, how to foster inclusiveness and help students at risk of failure, as well as the input on how to ethically use students' data. That chapter will be added to the e-course.	Literature analysis and gathering best practice examples on implementation of learning analytics (LA) in innovative teaching approaches (FC and WBL)	Research community			
	Research on student and teacher perspective on learning analytics use	Research community			
	Preparation of learning analytics models for teachers and students including data sets and methods for reporting and prediction	HE teachers HE management Instructional designers			
	Defining functional specifications and development of the dashboards for students and teachers for an open source LMS	HE teachers Instructional designers			

	Development of tips and tricks for teachers on dashboard data interpretation	HE teachers			
	Development of guidelines on ethical use of data	HE teachers			
	Design and preparation of e-course chapter on learning analytics	HE teachers Instructional designers			
	Analysis of data obtained in LMS during piloting and displayed on dashboards				
<p>IO4 Code of practice on impact analysis of innovative pedagogies with the main aim to use this unique opportunity to design, describe and test the methodology for impact analysis of innovative approaches in online education. This result is defined as a framework of impact analysis on digital transformation plan and other strategic goals of HEI. That chapter will be added to the e-course</p>	Literature analysis and gathering information from the partners about strategic planning and link to innovative TL	Research community			
	Preparation of semi-structured interviews with decision makers (level of project partners) about their needs for evidence about efficiency of innovative approaches				
	Development of methodology for measuring impact of implementation of FC and WBL in an online environment on strategic goals	HE Management			
	Preparation of showcase based on the performed impact analysis on two partner institutions	HE Management			
	Development of Code of Practice including methodology and two showcases on how and when to	HE Management			

	implement innovative approaches in online environment and how to link them with the strategic goals				
	Design and preparation of e-course chapter on impact analysis	HE Management			
	Focus group design for impact of innovative pedagogies on HEIs strategic goals				