RAPIDE

rapide-project.eu

RELEVANT ASSESSMENT AND PEDAGOGIES FOR INCLUSIVE DIGITAL EDUCATION

Results of a well-balanced, impact-driven and sustainable partnership

RAPIDE INFO CARD

CALL	PARTNERSHIPS FOR DIGITAL EDUCATION READINESS
CALL PRIORITY	INNOVATIVE PRACTICES IN A DIGITAL ERA To the respond to the circumstances created by the COVID-19 pandemic HE: Tackling skills gaps and mismatches HORIZONTAL: Supporting educators, youth workers, educational leaders and support staff
PROJECT FULL TITLE	RELEVANT ASSESSMENT AND PEDAGOGIES FOR INCLUSIVE DIGITAL EDUCATION
PROJECT ACRONYM	RAPIDE
PROJECT TOTAL BUDGET	219.085 EUR
PROJECT DURATION	24 months (B:1/3/2021; E:28/02/2023)
PROJECT OBJECTIVE	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

RAPIDE PARTNERS

UNIVERSITY OF ZAGREB (UNIZG)

Faculty of Organization and Informatics (FOI) • *Coordinator*

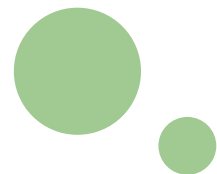School of Medicine (SoM)

THE OPEN UNIVERSITY (OU)

DELFT UNIVERSITY OF TECHNOLOGY (TU DELFT)

GOETHE UNIVERSITY (GOETHE UNI)

UNIVERSITY OF RIJEKA (UNIRI)

"**Rapide results are as important as the impact they have on us and the society.**"

RAPIDE RESULTS

● **4 intellectual outputs**

IO1   OPEN EDUCATIONAL RESOURCES AND E-COURSE FOR FLIPPED CLASSROOM AND
　　　 WORK-BASED LEARNING FOR USE IN AN ONLINE ENVIRONMENT

IO2   TOOLKIT FOR ASSESSMENT OF STUDENTS IN FLIPPED CLASSROOM AND WORK
　　　 BASED LEARNING

IO3   LEARNING ANALYTICS FOR FLIPPED CLASSROOM AND WORK BASED LEARNING

IO4   CODE OF PRACTICE FOR HEIs ON IMPACT ANALYSIS OF INNOVATIVE PEDAGOGIES

● **4 modules of RAPIDE MOOC**

Module 1   LET'S INNOVATE TEACHING
Module 2   LET'S INNOVATE ASSESSMENT
Module 3   LET'S INNOVATE SUPPORT
Module 4   IMPACT ANALYSIS OF INNOVATIVE PEDAGOGIES

● **4 management supporting documents**
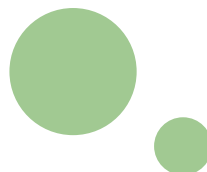
PROJECT HANDBOOK
QUALITY MANAGEMENT PLAN
DISSEMINATION NAD COMMUNICATION PLAN
IMPACT FRAMEWORK

● **4 LTT activities**

CROATIA - THE NETHERLANDS - GERMANY - CROATIA

● **4 multiplier events**

THE NETHERLANDS - UK - GERMANY - CROATIA

> **"The BDP concept and tool development was supported by RAPIDE and vice versa."**
>
> **LEARNING-DESIGN.EU**

15+ papers and posters prepared to bring the results to researchers and practitioners

20+ project presentations held within different events

20+ people from partner institutions included in 4 LTT events

40+ people involved in the development of RAPIDE results from partner institutions

100+ people participated RAPIDE multiplier events

200+ participants joined and learned within RAPIDE MOOC

4
intellectual outputs

4
modules of RAPIDE MOOC

OPEN EDUCATIONAL RESOURCES AND E-COURSE FOR FLIPPED CLASSROOM AND WORK-BASED LEARNING FOR USE IN AN ONLINE ENVIRONMENT

INTELLECTUAL OUTPUT 1

LEAD: The Open University • DURATION: M1-M10

The aim of this output was to design the original and practical guidelines for flipped classroom and work-based learning approaches in an online environment. The aim of these guidelines was to target HEI teachers and provide for them an overview and specific recommendations on successfully using innovative approaches in online teaching in order to reduce skills mismatch.

TASKS PERFORMED WITHIN THIS IO:
• Literature analysis and gathering best practice examples on implementation of FC and WBL
• Defining the teaching scenarios and implementational steps for integration of FC and WBL in an online environment
• Preparation of showcases on how to implement FC and WBL in different subject areas and educational systems
• Design of e-course 'Let's get flipped' on innovative teaching approaches
• Design and preparation of e-course chapter on FC and WBL
• Preparation of quality feedback on design, content and transferability of IO1
• Revision of educational resources according to feedback from training participants.

RAPIDE MOOC MODULE 1
Let's innovate teaching

GOAL

The goal of this module resulting from IO1 was to provide learners with hands-on training on using two innovative teaching approaches (i.e., flipped classroom (FC) and blended/online work-based learning (WBL)) in an online environment

Let's get flipped!

PILOTING RESULTS

Piloted: June 27 - July 14, 2022

Active learners: 91

Certificates of completion: 53

Success rate: 58 %

Workload: 25 h

LEARNING OUTCOMES:

• To understand the concept of innovative teaching approaches that stimulate students' engagement and deeper approaches to learning
• To analyse different academic subjects and their implementation in online environment
• To design and (potentially) implement FC and WBL in an online enviroment taking into account study and subject field, student backgrounds and needs.

TOOLKIT FOR ASSESSMENT OF STUDENTS IN FLIPPED CLASSROOM AND WORK BASED LEARNING

INTELLECTUAL OUTPUT 2
LEAD: TU Delft • DURATION: M3-M15

The aim of this output was to target HE teachers and to develop learning material for teachers which include assessment scenarios for the implementation of different assessment methods, mainly peer assessment and student's project assessment in different learning environments and within different HEIs. Further, within this output a tool (for an open source LMS) that supports peer assessment and project assessment was developed to demonstrate and enable assessment as described in learning material.

TASKS PERFORMED WITHIN THIS IO:

- Literature review and collation of best practice examples on student assessment (peer and student's project assessment)
- Definition of pedagogical specification of student assessment (peer and student's project assessment) in an online environment
- Preparation of showcases on how to implement peer and project assessment in different subject areas and educational systems

- Definition of functional specifications specifications and development of the tool for peer assessment and project assessment for an open source LMS
- Design and development of e-course chapter on student assessment to support FC and WBL
- Preparation of the quality feedback on design, transferability and technical implementation of IO2
- Revision of toolkit and tool according to feedback from training participants.

RAPIDE MOOC MODULE 2
Let's innovate assessment

GOAL
The goal of this module resulting from IO2 was to familiarize with the terms and concepts used in assessment as well as to learn how to implement different assessment methods and tools

LEARNING OUTCOMES:
- To design and implement inclusive assessment methods related to FC and WBL in an online environment taking into account learning outcomes and students' backgrounds
- To analyse different academic subjects and align with appropriate assessment methods (constructive alignment)
- To design and implement assessment methods related to FC and WBL in an online environment considering study and subject field and student background and needs
- To implement peer assessment (PA) and student project assessment using a peer assessment tool.

Let's get flipped!

PILOTING RESULTS
Piloted: September 5-19, 2022
Active learners: 66
Certificates of completion: 31
Success rate: 47 %
Workload: 25 h

LEARNING ANALYTICS FOR FLIPPED CLASSROOM AND WORK BASED LEARNING

INTELLECTUAL OUTPUT 3

LEAD: Faculty of Organization and Informatics •
DURATION: M8-M19

The aim of this IO was to target both teachers and students, to design dashboard models for teachers and students that supports innovative teaching approaches - FC and WBL. It provided recommendations of the supporting actions for both students and teachers to be more successful in meeting learning outcomes of higher cognitive level. Further, it offeres tips and tricks for teachers including the ethical use of data.
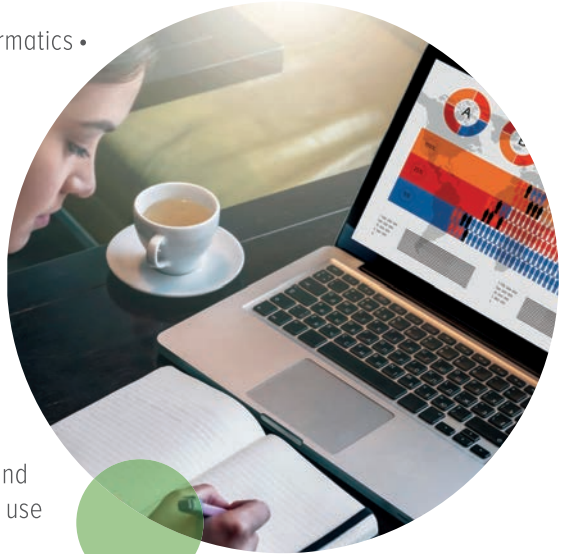
TASKS PERFORMED WITHIN THIS IO:

- Literature analysis and gathering best practice examples on implementation of learning analytics (LA) in innovative teaching approaches (FC and WBL)
- Research on student and teacher perspective on learning analytics use
- Preparation of learning analytics models for teachers and students including data sets and methods for reporting and prediction
- Definition of functional specifications and development of the dashboards for students and teachers for an open source LMS
- Development of tips and tricks for teachers on dashboard data interpretation
- Development of guidelines on ethical use of data
- Design and preparation of e-course chapter on learning analytics
- Preparation of the quality feedback on design, transferability and technical implementation of IO3
- Analysis of data obtained in LMS during piloting and displayed on dashboards
- 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.

RAPIDE MOOC MODULE 3
Let's innovate support (learning analytics)

GOAL
This module, resulting from IO3, introduces learning analytics, which offers important insights into learning processes by analysing and reporting digital data about students' learning, collected primarily in learning management systems. Insights provided by learning analytics can help teachers better understand their students' learning, recognize their weaknesses, and accordingly, design their teaching and provide appropriate feedback. They can also support students in informed decision-making and self-regulated learning. What students and teachers usually interact with in terms of learning analytics are visualizations presented in dashboards. Therefore, this module puts a special focus on exploring and discussing the specific needs of both students and teachers. It also draws attention to data interpretation and ethical use of data, essential in making use of learning analytics.

Let's get flipped!

PILOTING RESULTS
Piloted: September 26 - October 13, 2022
Active learners: 62
Certificates of completion: 33
Success rate: 53 %
Workload: 25 h

LEARNING OUTCOMES:
- To analyse aspects in which learning analytics can be used in order to support students in learning and their teachers in facilitating students' learning in an online environment
- To analyse learning analytics models and dashboards that support students in the flipped classroom and work-based learning in an online

environment, taking into account study and subject field and student background and needs
- To interpret learning analytics data and take into account ethical aspects of learning analytics
- To relate learning analytics to the social impact and informed decision-making in higher education.

CODE OF PRACTICE FOR HEIS ON IMPACT ANALYSIS OF INNOVATIVE PEDAGOGIES

INTELLECTUAL OUTPUT 4
LEAD: Goethe University • DURATION: M10-M24

The aim of this IO was to target HEI policy-makers and educational leaders. Therefore, valuable data was gathered within the project activities and developed code of practice for teachers and especially for policy makers and educational leaders on how to prepare the monitoring and evaluation of the implementation of new teaching, learning, and assessment practices. Further, a framework of impact analysis on digital transformation plan and other strategic goals of HEI was developed.

TASKS PERFORMED WITHIN THIS IO:

- Literature analysis and gathering information from the partners about strategic planning and link to innovative TL
- 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
- Preparation of showcase based on the performed impact analysis on two partner institutions
- Development of Code of Practice including methodology and two show-cases on how and when to 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
- Focus group design for impact of innovative pedagogies on HEIs strategic goals
- Revision of Code of Practice according to feedback from focus group.

RAPIDE MOOC MODULE 4
Impact analysis of innovative pedagogies

GOAL
The goal of this module resulting from IO4 was to familiarize learners with basic terms and concepts related to strategic planning in higher education, as well as evaluation and impact analysis of courses, planning evaluation objectives for FC or WBL courses using a step-by-step model for impact analysis and development of evaluation course concept.

LEARNING OUTCOMES:
- To plan the impact analysis for a FC or WBL based lecture with the logical model results staircase
- To measure the impact of innovative teaching like FC or WBL on institutional strategic goals
- To investigate indicators and appropriate scales suitable for the chosen evaluation objectives
- To create an evaluation concept or a study design for the impact analysis from the selected indicators.

Let's get **flipped!**

PILOTING RESULTS
Piloted: October 17- November 7, 2022
Active learners: 42
Certificates of completion: 52
Success rate: 52 %
Workload: 25 h

Knowledge increases by sharing but not by saving.

RAPIDE PUBLICATIONS

• Divjak, B. Rienties, B. Iniesto, F. Vondra, P. Žižak, M. (2022) Flipped classrooms in higher education during the COVID-19 pandemic: findings and future research recommendations. International Journal of Educational Technology in Higher Education, 19 (1), 9, 24.

• Divjak, B. Žugec, P. Pažur Aničić, K. (2022) E-assessment in mathematics in higher education: a student perspective. International journal of mathematical education in science and technology, online, 2117659, 23.

• Divjak, B., Kadoić, N. & Žugec, B. (2021) The Use of Decision-Making Methods to Ensure Assessment Validity. In: 2021 IEEE Technology & Engineering Management Conference - Europe.

• Divjak, B. Svetec, B. Horvat, D. Kadoić, N. (2022) Assessment validity and learning analytics as prerequisites for ensuring student-centred learning design. British Journal of Educational Technology, 00, 1– 22.

• Divjak, B. Svetec, B. Horvat, D. (2023) Learning analytics dashboards: What do students actually ask for? LAK 2023, March 13–17, 2023, Arlington, TX, USA.

• Divjak, B. Vondra, P. Pažur Aničić, K. (2022) Strategic Development of a National Pre-tertiary Learning Analytics System. Journal of Information and Organizational Sciences, 46 (1), 173-195.

• Divjak, B. Grabar, D. Svetec, B. Vondra, P. (2022) Balanced Learning Design Planning: Concept and Tool. Journal of information and organizational sciences, 46 (2), 361-375.

• Rienties, B. Balaban, I. Divjak, B. Grabar, D. Svetec, B. Vondra, P. (2023). Applying and translating learning design and analytics approaches across borders. In: Viberg, Olga and Grönlund, Åke eds. Practicable Learning Analytics. Advances in Analytics for Learning and Teaching. Cham: Springer, (In Press).

• Divjak, B. (2021) Learning Analytics - Multi-user and Multi-level Perspective. In: Bojana Domazet, M. (ed.) Twelfth International Conference on eLearning 2021.

• Žižak M. (2022) Zbog čega bi katedre u svom nastavnom radu trebale uvesti metodu „obrnute učionice"? Journal of the School of Medicine UniZG Mef.hr. 41(2): 83-87.

• Žižak M. Brauneger D. (2022) Preporuke za uvođenje metode obrnute učionice u nastavu. Journal of the School of Medicine UniZG 41(2): 88-93.

• Žižak M. (2022) Inovacije u kliničkoj nastavi u online okruženju (uvođenje modela „simuliranog bolesnika"). Journal of the School of Medicine UniZG Mef.hr. 40(1): 13-17.

• Žižak M. (2022) Analitika učenja u studiju medicine. Journal of the School of Medicine UniZG Mef.hr. 41(1): 14-16.

• Žižak M. Brauneger D. Sović S. (2022) Stavovi studenata o informacijama koje pruža analitika učenja (studija). Journal of the School of Medicine UniZG. Mef.hr. 41(1): 17-25.

• Saunders - Smits, G. van Helden, G. van der Werf, V. Specht, M. M. (2022). Using peer assessment in inclusive digital education. In H-M. Jarvinen, S. Silvestre, A. Llorens, & B. V. Nagy (Eds.), Proceedings of the 50th Annual Conference Universitat Politècnica de Catalunya - BarcelonaTech (UPC) (pp. 2305-2308)

IN REVIEW (February, 2023)

• Rienties, B. Divjak, B. Iniesto, F. Pazur Aničić, K. Žižak, M. (2022) Online work-based and work-integrated learning: a systematic literature review. Interactive Learning Environment.

• Divjak, B. Rienties, B. Svetec, B. Vondra, P. Žižak, M. (2022) Reviewing assessment in online and blended flipped classroom.

• Van Helden, G. van der Werf, V. Saunders-Smits, G. N. Specht, M. (2022) The Use of Digital Peer Assessment in Higher Education – an Umbrella Review of Literature.

• Rienties, B. Divjak, B. Eichhorn, M. Iniesto, F. Saunders-Smits, G. N. Svetec, B. Tillmann, A. Žižak, M. (2022) Online professional development across institutions and borders.

RAPIDE POSTERS

• Divjak, B. Bađari, J. Grabar, D. Svetec, B. Vondra, P. (2022) 4 MOOCs 4 Future teachers. CECIIS22

• Svetec, B. Divjak, B. (2022) Supporting Meaningful Assessment Through Balanced Learning Design. Assessment in Higher Education

"By failing to prepare, you are preparing to fail." (B.F.)

RAPIDE SUPPORTING DOCUMENTS

RAPIDE team developed 4 management documents with the aim to support the work of this well-balanced, impact driven and sustainable partnership:

PROJECT HANDBOOK - designed to set out the basis for an effective management and coordination of the RAPIDE project. It is a practical guide intended to the coordinator and project partners to ensure timely, quality risk-free and budget-related project implementation.

QUALITY MANAGEMENT PLAN - prepared with the purpose to establish the quality requirements and standards that will apply to the project activities and results and to determine how the requirements and standards will be met based on the project objectives. It is focused on providing confidence that the quality requirements will be met, as well as the quality assurance tools, procedures, objectives, and metrics.

DISSEMINATION AND COMMUNICATION PLAN - designed to enable partners the dissemination, exploitation and sustainability of project results, dissemination and communication activities during project lifetime that play a very important role enabling the actions towards the use of project results.

IMPACT FRAMEWORK - developed with the aim to help partners to monitor the impact of their work and project results. Based on the theory of change, it defines the main dimensions and moments of RAPIDE project potential to reach the highest impact.
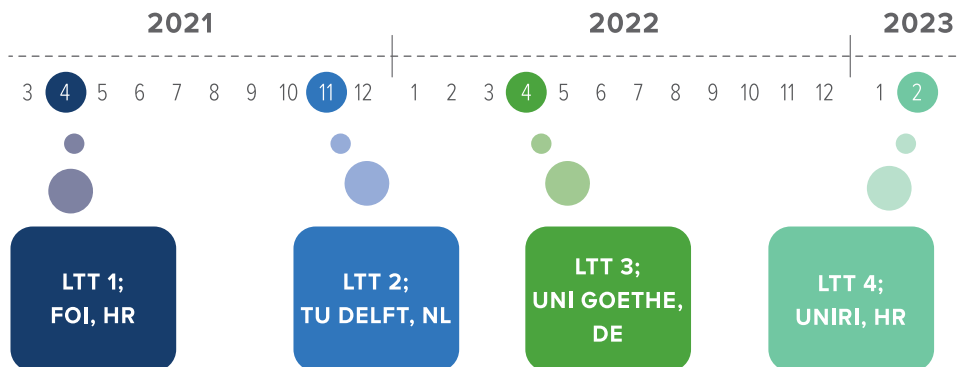
"Who dares to teach must never cease to learn." (J.C.D.)

RAPIDE EVENTS

LEARNING, TEACHING AND TRAINING ACTIVITIES

	2021											2022												2023	
3	**4**	5	6	7	8	9	10	**11**	12	1	2	3	**4**	5	6	7	8	9	10	11	12	1	**2**

**LTT 1;
FOI, HR**

**LTT 2;
TU DELFT, NL**

**LTT 3;
UNI GOETHE,
DE**

**LTT 4;
UNIRI, HR**

MULTIPLIER EVENTS

1

NETHERLANDS

SEFI 2022 CONFERENCE
September 20, 2022

LEIDEN-DELFT-ERASMUS
UNIVERSITIES CENTRE FOR
EDUCATION AND LEARNING
ANNUAL EVENT

December 7, 2022

2

GERMANY

eLEARNING
NETWORKING DAY

November 28, 2022

3

**UNITED
KINGDOM**

IMPLEMENTING EFFECTIVE
INNOVATIVE PEDAGOGIES

January 31, 2023
February 2, 2023

4

CROATIA

MEANINGFUL
INNOVATIONS
IN EDUCATION
Final Conference

February 24, 2023

RAPIDE TEAMS

RAPIDE included strong teamwork of 40 researchers and professionals from 6 institution during 24 intensive months (March 1, 2021 - February 28, 2023).

UNIVERSITY OF ZAGREB

• Faculty of Organization and Informatics

Blaženka Divjak (Coordinator), Josipa Bađari (Project Manager), Petra Vondra, Barbi Svetec, Darko Grabar, Nikola Kadoić, Valentina Kirinić, Goran Hajdin, Petra Žugec, Katarina Pažur Aničić, Mihaela Laljek, Lana Škvorc, Damir Horvat

"By working collaboratively within RAPIDE project we proved how true co-creation and teamwork can surpass what was initially promised - qualitatively, quantitatively and sustainably."
(Blaženka Divjak, FOI)

• School of Medicine

Mirza Žižak (Team Lead), Dora Brauneger

"Our team is particularly proud that we have been able to contribute to this partnership with our experience in the implementation of innovative approaches to teaching and learning in medical education."
(Mirza Žižak, SoM)

UNIVERSITY OF RIJEKA

Marta Žuvić (Team Lead), Maja Gligora Marković, Vedrana Mikulić Crnković, Nataša Hoić-Božić, Martina Holenko Dlab

"Participation in RAPIDE was not only pleasurable experience but also useful one since we were working and learning from very honorable and respected partners from Europe on the project results that can be easily transferred to the context of our university."
(Marta Žuvić, UNIRI)

DELFT UNIVERSITY OF TECHNOLOGY

Marcus Specht (Team Lead), Gillian Saunders-Smits, Sylvia Walsarie Wolff, Vivian van der Werf, Gitte van Helden, Naomi Wahls, Ioanna Jivet, Priya Sarkar

"I am delighted that by publishing many of our resources under a Creative Commons license most materials for our MOOC and other publications will be avaiable for reuse, so that others may continue to benefit from them."
(Gillian Saunders-Smits, TU Delft)

GOETHE UNIVERSITY

Alexander Tillmann (Team Lead), Michael Eichhorn, Ralph Müller, Angela Rizzo, Julia Schmitt

"We will continue to use the four modules of the MOOC here in Frankfurt in the future. The materials, exercises and questions are very valuable for our teachers, designing own innovative teaching. We would like to thank our partners for the wonderful cooperation and we are looking forward to working together in future."
(Alexander Tillmann, Goethe Uni)

THE OPEN UNIVERSITY

Bart Rienties (Team Lead), Francisco Iniesto, Duygu Bektik, Simon Cross, Nick Freear, Reda Norkute, Joan Oliver

"RAPIDE results are really important for future practice and teaching and research, as we have shown that by working together, we're able to provide amazing and super innovative learning designs that are not only relevant for our current students, but also for our future students."
(Bart Rienties, OU)

RAPIDE LEARNERS

RAPIDE included intensive learning of more than 200 researchers and professionals within RAPIDE MOOC piloted in June - November, 2022.

" The assignments were challenging which pushed the whole group to collaborate. Also, it motivated us to read additional materials to be able to accomplish our task. "

" Staircase and MIT approaches gave me a new perspective. Group work and breakout sessions, provided an opportunity to discuss and consider other participants' perspectives on the tasks. "

" Great learning materials and video lessons. "

" Overall, even though for both there was complexity in the task and workload involved, I enjoyed and liked to have participated as in the end I can say I actually learned something. "

" The thing I liked the most was the teamwork on dashboard concepts. I think it gave a good opportunity to first reflect on the content of the preparatory materials, and then get creative and think about what is needed in dashboards by teachers and students in our educational contexts. "

" RAPIDE MOOC was much closer to personal experience than I have expected. "

" I liked the most the discussions in Live sessions. I could hear what others think. "

“I liked working with the provided materials individually, but I also really enjoyed working in my group.”

“Encouraged by this course, I plan to introduce the flipped classroom method into the courses I teach, in certain units to begin with, to encourage my students to take a more active role in the teaching process. I believe that after the Covid pandemic and the experience with online teaching, this method would be more acceptable to students today and I hope that it will contribute to their motivation.”

“I find the BDP LD tool very helpful and am glad it was introduced as part of the course. I will continue to use it in the future.”

“I liked the selected articles about FC and WBL because it makes the module and what's that all about more comprehensive.”

“Getting feedback and views on peer assessment from more experienced colleagues was very valuable to me.”

“I will try to implement the techniques we adopted into my everyday work with students and residents.”

“I will try to implement more peer assessment in my everyday work.”

RAPIDE

Relevant assessment and pedagogies for inclusive digital education

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