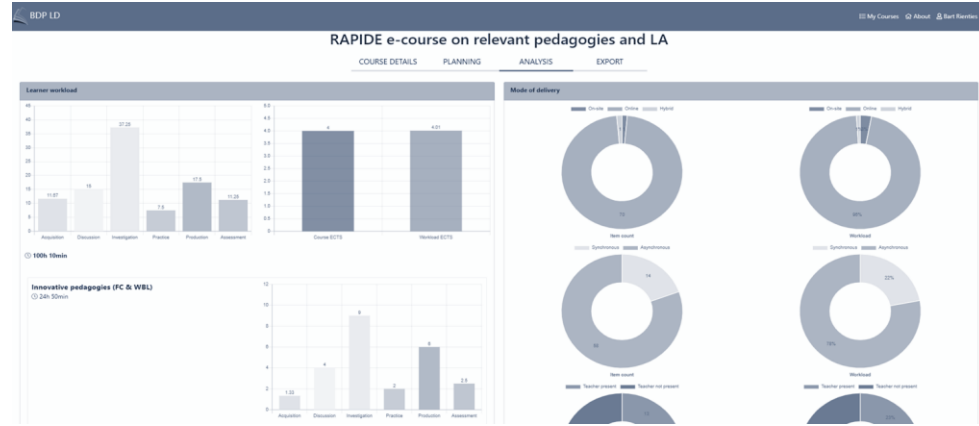So while we are waiting to start our interactive workshop, please could you already:

1) Fill in this short google doc why you are here: https://tinyurl.com/EdutechAsia2023
2) Create an account for the tool that we will use throughout this workshop https://learning-design.eu/ (yes it is for free)

Thanks in advance!

iLed
Innovating Learning Design
in Higher Education

[W10] 7 Nov (PM) - Applying and translating learning design and analytics approaches in your institution

Blazenka Divjak[1], Bart Rienties[2], Josmario Albuquerque[2]
[1]University of Zagreb [2]The Open University

AGENDA

14:00 - 14:15 Welcome and introduction to learning design and learning analytics

14:15 - 15:20 The importance of Balanced Design Planning tool and learn to play with it

15:20 - 15:30 - Break

15:30- 15.50 - Presenting your design to the wider group and receiving feedback

15:50 – 16:00 - Overview of lessons learned of implementing BDP tool at Scale and wrap-up

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https://tinyurl.com/EdutechAsia2023

What we have learned in 10 years in terms of benefits of LA?

Learners

Enhance engagement of students
Personalization of learning
Enrich personalized learning environments
Increase self - reflection & self-awareness
Parents (Monitoring students' activities)

Improve learning outcomes
Increase in students adaptivity

Faculty

Enhance Assessment services
Get a real - time feedback
Understand students learning habits
Monitoring students' activities
Provide warning signal
Improve instructor performance
Get a deeper understand teaching/learning
Researchers (Increase efficiency Education & serious games, Identify knowledge gaps)

Make efficient interventions
Get a real - time insight
Modify content for students' desire
Predicting student performance
Improve teaching strategy
Sources recommendation

Institutions

Identifying target course
Improve learning design

---

1. Support access and inclusion
2. EDI

---

1. Improved pedagogical awareness
2. Improved data literacy and confidence
3. Driver for change based upon evidence

---

1. Identify good practice/teachers/modules
2. Alignments between modules/qualifications
3. Indications of good practice between/across institutions

Case-studies included from Arizona State University (*USA*), Dublin City University (IRE), Georgia State University (*USA*), Northern Arizona University (USA), New York Institute of Technology (USA), **The Open University (UK)**, Open Universities Australia (AUS), Purdue University (USA), Rio Salado College (USA), Sinclair Community College (USA), Tecnológico de Monterrey (Mex), University of Alabama (USA), University in Ankara (TUR), University of Maryland (USA), University of Michigan (USA), University of Wollongong (AUS)

Hernández-de-Menéndez, M., Morales-Menendez, R., Escobar, C. A., & Ramírez Mendoza, R. A. (2022). Learning analytics: state of the art. International Journal on Interactive Design and Manufacturing (IJIDeM), 16, 1209–1230. https://doi.org/10.1007/s12008-022-00930-0
331 OU papers on Learning Analytics can be found here: https://tinyurl.com/2p892rf2

What we have learned in 10 years in terms of challenges of LA?

1	**Ethics and privacy**. Various questions arise here, e.g., who has access to the data and personal information, how long it is kept, how much data is safe and who owns the data.
2	**Scope and quality of data**. Questions that arise include how much data should be collected, how much data should have variety, what type of data has value for learning and how much reliable predictions can be made.
3	**Theoretical and educational foundations**. There is a lack of attention to learning and teaching theories. *LA* should be based on pedagogical and epistemological assumptions.
4	**Research.** More research is needed to establish the foundations of *LA* (Dollinger & Lodge, 2018).
5	**Practice**. There is a lack of transference of *LA* theory to practice (Dollinger & Lodge, 2018). A user center design methodology as well as include the final user in the design process is needed to develop *LA* systems and applications (Domínguez F et al., 2020).
6	**Institutions**. It is essential to align the points of view of researchers, educators, learners, educational technologists and administrators regarding *LA* (Leitner & Ebner, 2019).
7	**Measurement of impact**. It is well known that *LA* can impact students learning by supporting teaching and learning strategies (Knight, Gibson, & Shibani, 2020).

OU has Ethics LA policy since 2014

Data Governance

Actual adoption and sense making

OU #1 in Europe, #2 in world

Actual adoption and sense making

LA embedded in design and practice

Good evidence within a module, more needed across qualifications and diversity

Hernández-de-Menéndez, M., Morales-Menendez, R., Escobar, C. A., & Ramírez Mendoza, R. A. (2022). Learning analytics: state of the art. International Journal on Interactive Design and Manufacturing (IJIDeM), 16, 1209–1230. https://doi.org/10.1007/s12008-022-00930-0
331 OU papers on Learning Analytics can be found here: https://tinyurl.com/2p892rf2

Magic of learning design (does not come easy for assessment)

ORIGINAL PAPER

Check for updates

Learning Design: European Approaches

Barbara Wasson[1] · Paul A. Kirschner[2]
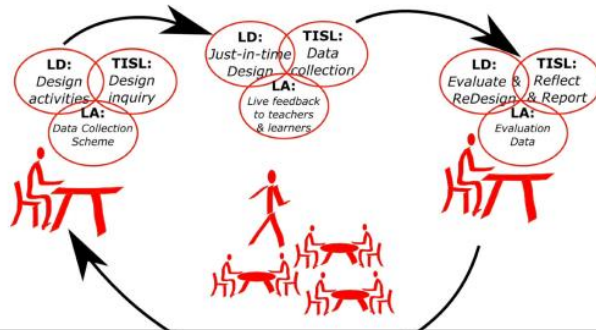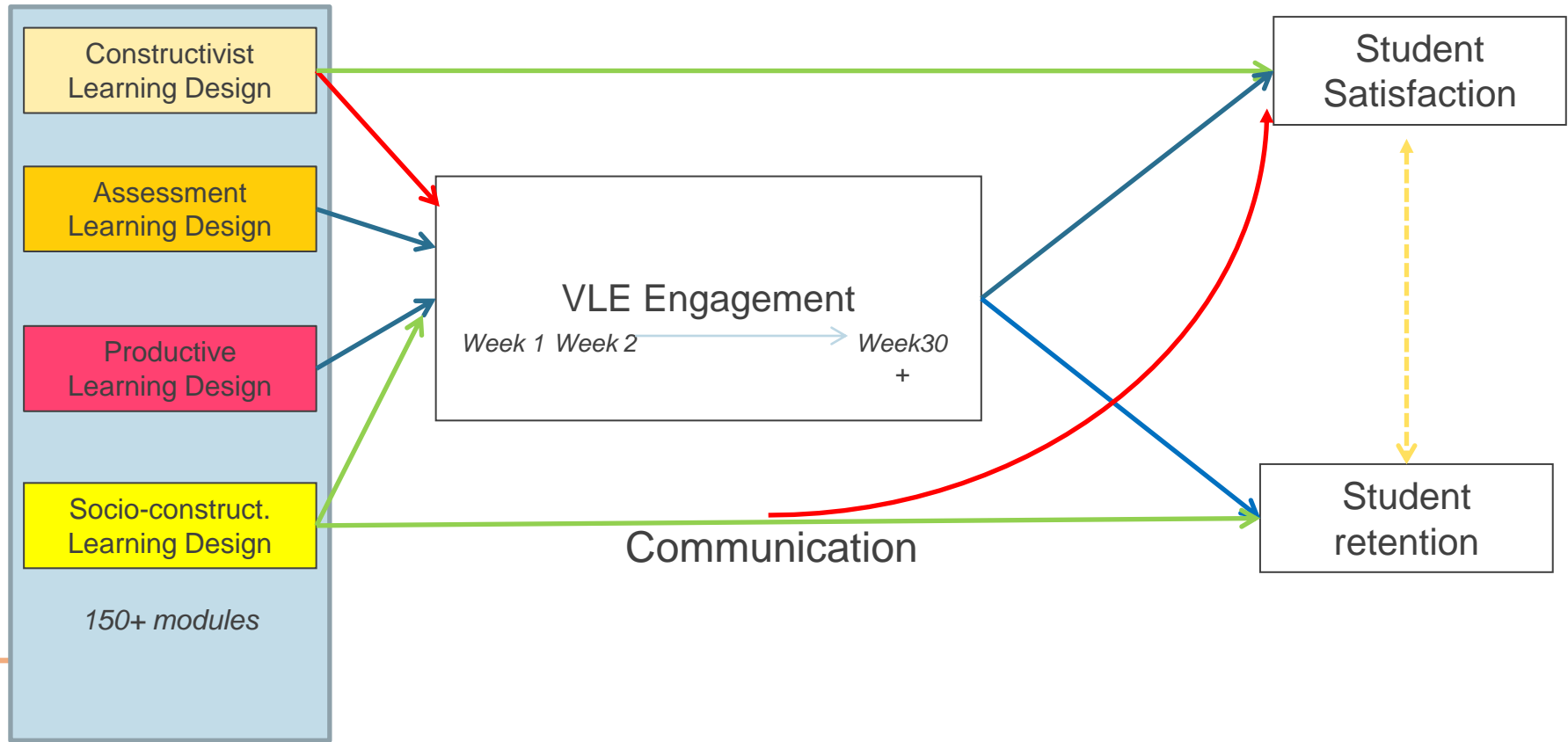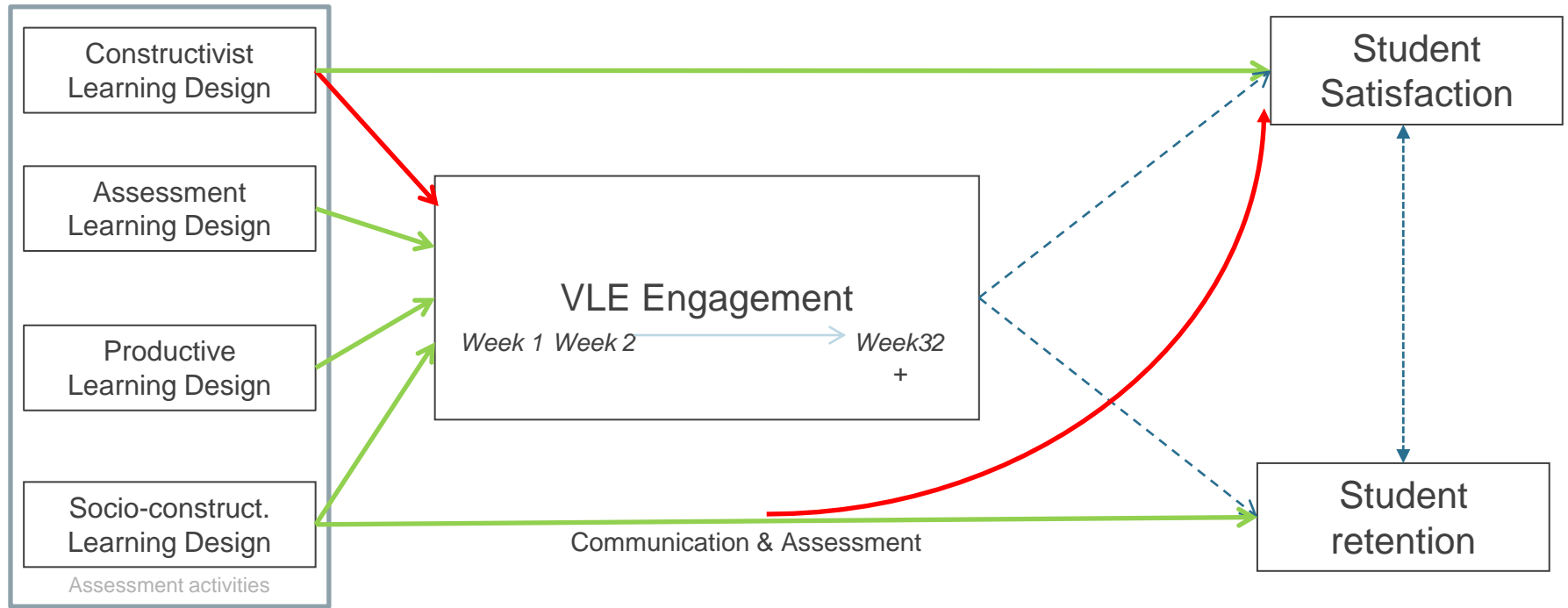
Abstract
Research on instructional and learning design is 'booming' in Europe, although there has been a move from a focus on content and the way to present it in a formal educational context (i.e., instruction), to a focus on complex learning, learning environments including the workplace, and access to learner data available in these environments. We even see the term 'learning experience design' (Neelen and Kirschner 2020) to describe the field. Furthermore, there is an effort to empower teachers (and even students) as designers of learning (including environments and new pedagogies), and to support their reflection on their own practice as part of their professional development (Hansen and Wasson 2016; Luckin et al. 2016; Wasson et al. 2016). While instructional design is an often heard term in the United States and refers

Fig. 7 Teacher-led design inquiry of learning and innovation cycle (Wasson et al. 2016)

"Research on **the relationship between learning design and learning analytics** has also been a focus in European research in recent years. For example, in their research at **the Open University UK**, Toetenel and Rienties combine learning design and learning analytics where learning design provides context to empirical data about OU courses enabling the learning analytics to give insight into learning design decisions. **This research is important as it attempts to close the virtuous cycle between learning design to improve courses and enhancing the quality of learning, something that has been lacking in the research literature**. For example, they study the impact of learning design on pedagogical decision-making and on future course design, and the relationship between learning design and student behaviour and outcomes (Toetenel and Rienties 2016; Rienties and Toetenel 2016; Rienties et al. 2015)."

Wasson, B., & Kirschner, P. A. (2020). Learning Design: European Approaches. *TechTrends*, 1-13.

Constructivist Learning Design

Assessment Learning Design

Productive Learning Design

Socio-construct. Learning Design

150+ modules

VLE Engagement

Week 1 Week 2 → *Week30*
+

Communication

Student Satisfaction

Student retention

Rienties, B., Toetenel, L., (2016). The impact of learning design on student behaviour, satisfaction and performance: a cross-institutional comparison across 151 modules. *Computers in Human Behavior*, 60 (2016), 333-341

Nguyen, Q., Rienties, B., Toetenel, L., Ferguson, R., Whitelock, D. (2017). Examining the designs of computer-based assessment and its impact on student engagement, satisfaction, and pass rates. *Computers in Human Behavior*. DOI: 10.1016/j.chb.2017.03.028.

69% of what students are doing in a week is determined by us, teachers!

Nguyen, Q., Rienties, B., Toetenel, L., Ferguson, R., Whitelock, D. (2017). Examining the designs of computer-based assessment and its impact on student engagement, satisfaction, and pass rates. *Computers in Human Behavior*. DOI: 10.1016/j.chb.2017.03.028.
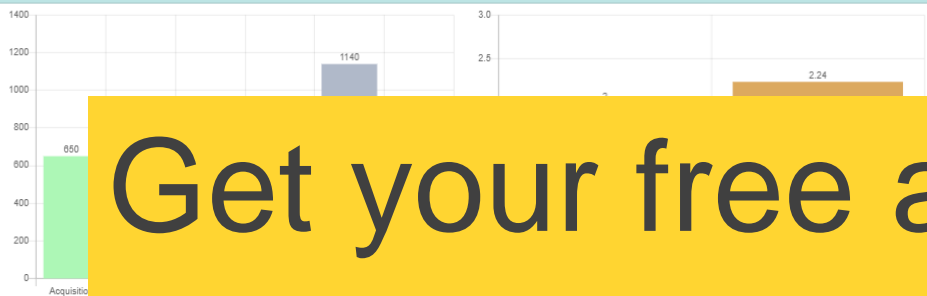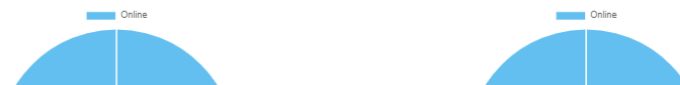
Get your free account

https://learning-design.eu/

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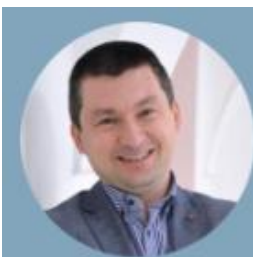
Igor Balaban
Vice-Dean for Science, International Cooperation and Projects, University of Zagreb, Faculty of Organization and Informatics

Blazenka Divjak
Full Professor, University of Zagreb, Faculty of Organization and Informatics, Croatia

Darko Grabar
Head of Software Development Center at Faculty of Organization and Informatics, University of Zagreb, Croatia

1. The Open University (OU) has been implementing **learning design for over 15 years** as a structured design, specification, and review process for blended and online courses. The learning design is focused on "what students do" as part of their learning, rather than on "what teachers do" or on what will be taught.

2. Building on this work, University of Zagreb (UZ) has recently developed the Balanced Design Planning (BDP) tool specifically for educators working in hybrid and blended contexts. The tool is more focussed on **intended learning outcomes and automated learning analytics** and is currently developed and tested with **160+ practitioners from ten institutions at nine countries** as part of three European projects (eDesk, Teach4EDU, and RAPIDE), and is publicly available for other institutions to use for free.

Good
+ Description of learning o
+ Addictive 😊
+ Analysis
+ Working together 😊
+ Intuitive

Functionality
- Trajectory
→ Students (Analytics) / adoption
  individual personalised needs
- Link to CMS (vice versa)
  link to skills/competence/knowledge
- Visualisation of text/decisions
- Interoperability / scorm / X-Api

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in Higher Education

https://learning-design.eu/

We have already engaged with 1200+ educators from 40+ countries using this approach with 425+ learning designs, and most educators find the tool and its related analytics useful and insightful, and helps them to implement innovation in their practice. Preliminary results indicate that educators and students find the visualisations useful for their planning their time.

TEACH4EDU4

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Innovating Learning Design
in Higher Education

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

RAPIDE
Relevant assessment and
pedagogies for inclusive
digital education

Learner workload

35 30 25 20 15 10 5 0
Acquisition 13.5, Discussion 2.83, Investigation 0, Practice 16, Production 26.67, Assessment 1

Learner workload

25 20 15 10 5 0
Acquisition 18, Discussion 0.5, Investigation 9.75, Practice 10.5, Production 1.5, Assessment 9.75

Learner workload

35 30 25 20 15 10 5 0
Acquisition 27.67, Discussion 6, Investigation 11.17, Practice 23.5, Production 4, Assessment 2.75

Learner workload

16 14 12 10 8 6 4 2 0
Acquisition 8.25, Discussion 8.25, Investigation 7, Practice 12, Production 9, Assessment 4.25

Divjak, B., Grabar, D., Svetec, B., & Vondra, P. (2022). Balanced Learning Design Planning: Concept and Tool. *Journal of Information and Organizational Sciences*.
Rienties, B., Balaban, I., Divjak, B., Grabar, D., Svetec, B., & Vonda, P. (2023). Applying and translating learning design approaches across borders. In O. Viberg & A. Gronlund (Eds.), *Practicable Learning Analytics*. Springer Nature.

Feel free to click with me

My courses

OVERVIEW

New course

☑ All courses ○ My courses ○ Shared with me

Search...

COMPLETED
RAPIDE
Relevant assessment and pedagogies for inclusive digital education

⚙ RAPIDE e-course on relevant pedagogies and LA
Darko Grabar, Petra Vondra, Mirza Žižak, Nikola Kadoić, Blaženka Divjak, Barbi Svetec, Bart Rienties, Gillian Saunders-Smits, Michael Eichhorn, Dora Brauneger, Francisco Iniesto, Nataša Hoić-Božić, Josipa Badari, Marta Žuvić, Gitte van Helden, Alexander Tillmann, Angela Rizzo, Vivian van der Werf

🎓 4 ECTS, ⚙ 45, 🖥 Online

IN PLANNING
☆ Learning Design template OU
Bart Rienties

🎓 15 ECTS, ⚙ 200, 🖥 Online

COMPLETED
iot:esd
iot@foi.hr

⚙ Internet of Things: Embedded software development
Igor Balaban, User User6, Peter Marton, Boris Tomas, Bart Rienties, Lovro Posarić

🎓 2 ECTS, ⚙ 29, 🖥 Blended

My courses

OVERVIEW

New course

Name [   ]

Description ⑦ **B** *I* U ☰

Teaching in English template (group 2)

How to be kind to others – (Group 2)

How to be kind to others – (Group 1)

Template Teach4EDU

p   tiny

How to be kind to others – (Group 1 cool group)

Image ⑦ Choose file No file

Teaching in English template (group 1)

Planned learners workload based on ⑦ ECTS credits   ˅

ECTS ⑦ [   ]

ECTS divisor ⑦ 25   ˅

Number of learners ⑦ [   ]

Mode of delivery ⑦ Face to Face   ˅

Planning | learning-design.eu/en/planning/97/topic/271

Distance Learning C... | SPSS Syntax | Databases | Library... | Graduate School N... | Scholarship at the... | Research Degrees R... | PGR Manager | Website: Postgradu...

BDP

My Courses · About · Help · Bart Rienties

Prepare!

1 [FOI*] Introductory reading on work-based learning (WBL)
A short reading material presenting a summary of research on WBL in online environments.
Acquisition · 30

2 Introductory video on FC and WBL
Introduction to the key concepts related to FC and WBL in general, with examples from project HEIs.
Acquisition · 20

3 [FOI*] Introductory reading on flipped classroom (FC)
A short reading material presenting a summary of research on FC in online environments.
Acquisition · 30

4 [FOI*] Quiz on FC and WBL
A short quiz covering the key notions related to FC and WBL, based on the reading material.
Assessment · 30 · 2

5 Discussion on prior experiences
Participants share experiences in FC and WBL in a discussion forum. The discussion is moderated by the OU.
Discussion · 60

Engage!

1 Reflect on FC and WBL experiences from colleagues
Participants discuss (synchronously) their experiences related to FC and WBL and compare those based on the introductory read.
Discussion · 60 · 2

2 Investigation of students' perspectives on FC and WBL
Participants explore available case studies related to FC and WBL.
Investigation · 120

3 Preparation of a design on FC
Participants work in groups to prepare proposals for designing and (potentially) implementing FC approaches.
Production · 180

4 Peer review of FC
Peer-assessment of the proposed FC design.
Assessment · 30 · 10

5 Preparation of a design on WBL
Participants work in groups to prepare proposals for designing and (potentially) implementing WBL approaches.
Production · 180

6 Peer assessment of WBL
Peer-assessment of the proposed design of WBL.
Assessment · 30 · 10

7 Q&A and live discussion
Participants discuss further questions related to FC and WBL in a moderated live (synchronous) discussion. The first part includes presentations of a few WBL and FC concepts. The second part includes a discussion on the key challenges related to WBL and FC.
Discussion · 120 · 2

Extend!

1 Further reading and individual research
Reading material related to most recent research on FC and WBL, with hints for investigation.
Investigation · 120

2 Problem solving related to FC and WBL
Participants reflect together on the potential benefits and risks of FC and WBL. Participants provide their interpretation, followed by peer-assessment.
Pratice · 120

3 Peer-assessment
Solutions to the problem assignment are peer-assessed.
Assessment · 60 · 10

4 Further reading
Participants are provided with additional research articles for independent learning
Investigation · 300

COURSE DETAILS PLANNING ANALYSIS EXPORT

Edit TLA

Name ⑦ | Peer-assessment

Description ⑦ | Solutions to the problem assignement are peer-assessed.

Learning type ⑦ | Assessment ⌄

Description
Use this category to allocate time to activities which are directly assessed, either by a tutor, a peer or a computer. Assessment includes both formative and summative assessment.

Example usage
Quizzes, tests, written assignments, peer assessment activities,...

Workload in minutes ⑦ | 60

Activity delivery ⑦ | Online On-site Hybrid

Synchronous Asynchronous

Teacher-present Teacher not present

Collaboration ⑦ | ☐

Work in groups ⑦ | ☐

Feedback ⑦ | ☑

Feedback provider ⑦ | ☑ Teacher ☐ Automated ☑ Peer ☐ Other

Assessment ⑦ | ☑

Assessment type ⑦ | Summative ⌄

Assessment provider ⑦ | ☑ Teacher ☑ Automated ☐ Peer ☑ Self ☐ Other

Assessment points ⑦ | 10

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Feedback

- Activities with feedback
- Activities without feedback
- Teacher
- Peer
- Automated
- Other

41 31

Item count

Assessment

Formative Summative

10 10
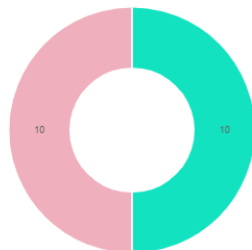
Assessment types count

Formative Summative

23

81
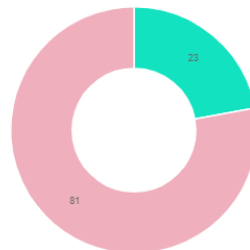
Assessment types by points

Assessment and learning outcomes

Topic	Assessment		♡ Describe the concept of innovative teaching approa... (8)	✓ Design and implement FC and WBL in online environm... (12)	✓ Design and implement assessment methods related to... (12)	✓ Implement peer-assessment and student project asse... (10)	📊 Analyse aspects in which learning analytics can be... (10)	📊 Analyse LA models and dashboards that support stud... (10)	📄 Interpret LA data taking into account ethical aspe... (10)	✓ Choose appropriate assessment methods, taking into... (8)	📊 Estimate the impact of innovative pedagogies on th... (10)	📊 Relate LA to the social impact and informed decisi... (10)
	Formative	Summative										
Innovative pedagogies (FC & WBL)	6	30	90%	90%	10%						10%	
Assessment related to innovative pedagogies	4	11	10%	10%	90%	100%				100%		
Learning analytics and dashboards	11	20					100%	100%	90%			20%
Impact of innovative pedagogies	2	20							10%		90%	80%
Total	23	81	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
		104										

Divjak, B., Grabar, D., Svetec, B., & Vondra, P. (2022). Balanced Learning Design Planning: Concept and Tool. *Journal of Information and Organizational Sciences*.

Rienties, B., Balaban, I., Divjak, B., Grabar, D., Svetec, B., & Vonda, P. (2023). Applying and translating learning design approaches across borders. In O. Viberg & A. Gronlund (Eds.), *Practicable Learning Analytics*. Springer Nature.

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15:30- 15.50 - Presenting your design to the wider group and receiving feedback

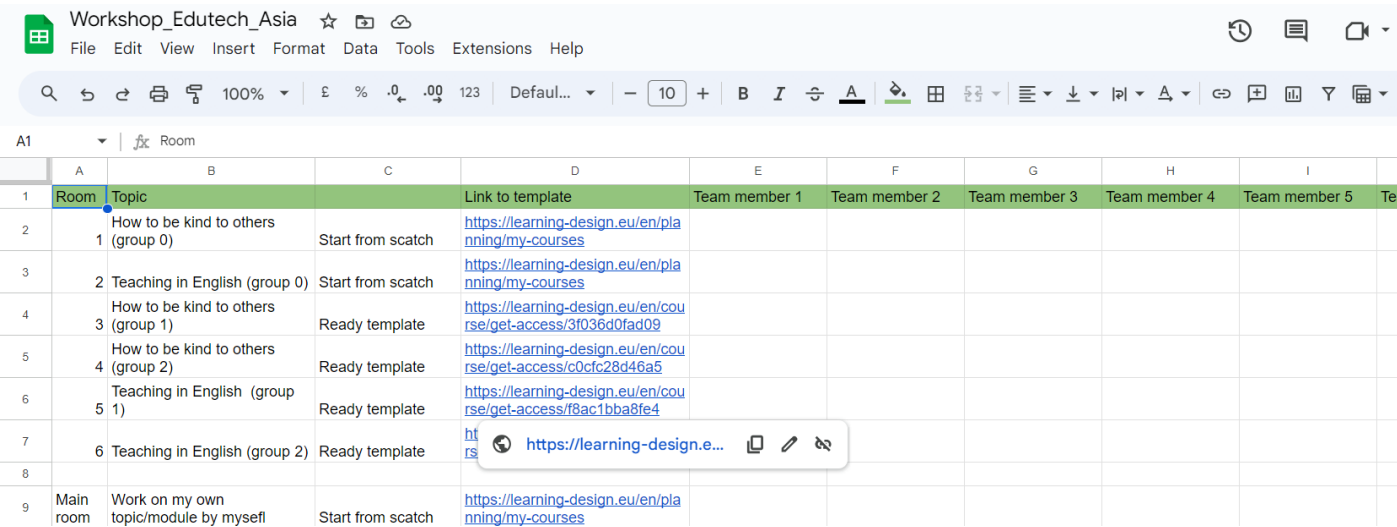15:50 – 16:00 - Overview of lessons learned of implementing BDP tool at Scale and wrap-up

Fill in this short google doc why you are here:
https://tinyurl.com/EdutechAsia2023

https://tinyurl.com/EdutechAsia2023: Register for your topic/group

As we will work in smaller groups (or individually if you prefer) in 5 minutes, please indicate in https://tinyurl.com/EdutechAsia2023 under worksheet "**Select your group/topic/way of working**" whether:

1. Choose from one of the predetermined topics depending on the numbers with pre-allocation into groups:
   a. How to be kind to others
      i. start from scratch
      ii. ready-made template and adjust
   b. Teaching in English
      i. start from scratch
      ii. ready-made template and adjust
2. Work on your own module (if you don't want to work in groups)

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https://tinyurl.com/EdutechAsia2023

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RAPIDE 4 MOOCS PILOTED

Modules

FINISHED
⏱ 25h   ⏱ 2 weeks
Module 1: Let's innovate teaching!

Start date: 27/06/2022
End date: 17/07/2022

Details

FINISHED
⏱ 25h   ⏱ 2 weeks
Module 2: Let's innovate assessment!

Start date: 05/09/2022
End date: 19/09/2022

Details

FINISHED
⏱ 25h   ⏱ 2 weeks
Module 3: Let's innovate support - Learning analytics and dashboards for FC and WBL

Start date: 26/09/2022
End date: 13/09/2022

Details

FINISHED
⏱ 25h   ⏱ 2 weeks
Module 4: Impact analysis of innovative pedagogies

Start date: 17/10/2022
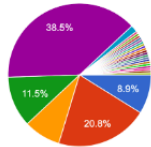End date: 06/11/2022

Details

Let's get flipped!

Note that these four courses are freely available to follow as "stand-alone" e-courses in the iLED follow-up project. More info at https://iled-project.eu/

RAPIDE 4 MOOCS PILOTED

The recruitment actions resulted with the following results:
1/number and profile of the participants

Institution
192 responses

- Goethe University Frankfurt
- Open University UK
- TU Delft
- University of Rijeka
- University of Zagreb
- University of Dundee
- Trinity College Dublin
- University of Leicester

1/4

2/ List of participants per Module

Please, choose at least 3 modules you are going to attend (we strongly recommend that you participate in all 4 modules).
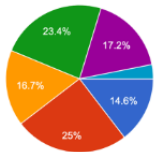192 responses

Module 1 - Innovative pedagogi... — 167 (87%)
Module 2 - Assessment in inno... — 176 (91.7%)
Module 3 - Learning analytics f... — 170 (88.5%)
Module 4 - Impact of innovative... — 162 (84.4%)

3/ Participant profiles - according to previous experience

How long have you been working as a HE teacher, educator/ instructional designer/ learning developer?
192 responses

- 0 - 1 year
- 2 - 5 years
- 6 - 10 years
- 11 - 20 years
- 20 - 30 years
- more than 30 years

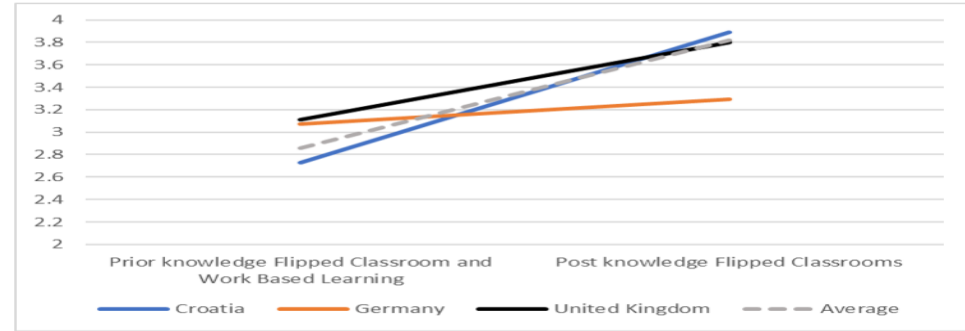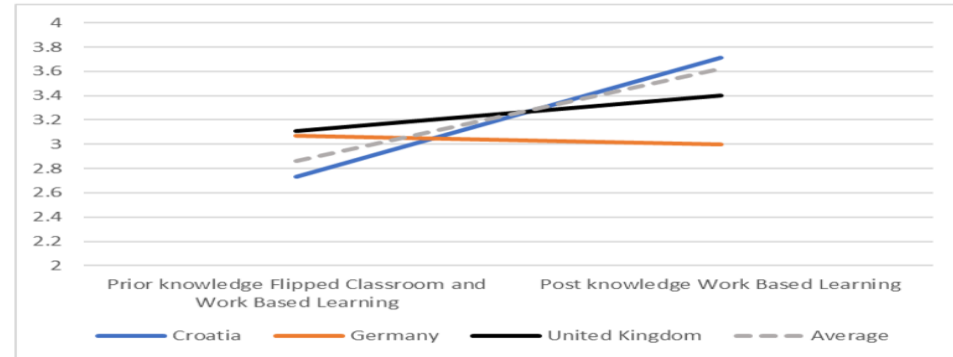Figure 2 (Pre and Post) Knowledge of flipped classrooms (1-5)

Figure 3 (Pre and Post) Knowledge of work-based learning (1-5)

Rienties, B., Divjak, B., Eichhorn, M., Iniesto, F. Saunders-Smits, G., Svetec, B., Tillmann, A., Zizak, M. (2023). Online professional development across institutions and borders. *International Journal of Educational Technology in Higher Education*, **Impact factor: 7.826**.

RAPIDE 4 MOOCS PILOTED: some lived experiences

"The very structure of the e-course, different types of activities (tests, workshop, work in groups, space for virtual work and group discussion, live sessions, BDP tool) and how they were carried out and how this contributed to the dynamics of work on the tasks and my motivation."

"What I liked the most was the relaxed atmosphere and the flexibility in allocating time to create all the e-courses; planned activities. Additionally, great praise for the ability to communicate very quickly with the organisers and other participants involved in this e-course."

"The BDP tool was new to me and I enjoyed being able to have a more visual representation of my plan. It helps me make sure I am keeping the activities and goals balanced and I loved how easy it is to edit the project there."

"I think it needs more time as all people are working during weekdays and many may be in different countries. This makes it a bit harder to coordinate everyone and results in some members not being able to work with the team, and incomplete work within the time given."

"the hardest thing for me was evaluating other works. They were not from my field of work, and besides, I don't have enough experience and knowledge in working with a flipped classroom, especially with the results of analyses"."

Machine learning approaches

1. We explored how 165 educators designed and integrated 12,749 teaching and learning activities (TLA) in 218 Learning Designs using clustering, pattern-mining, and correlational analysis.
2. The findings suggest educators use a combination of four common learning design nucleobases (i.e., Collaboration, Generating independent learning, Assessment, Traditional classroom activities).
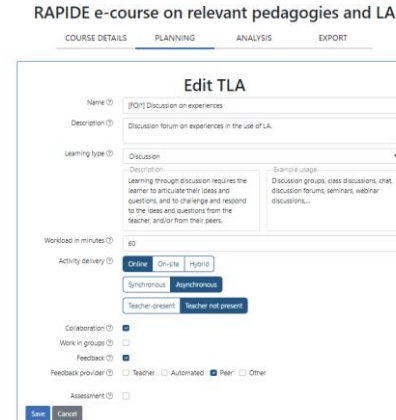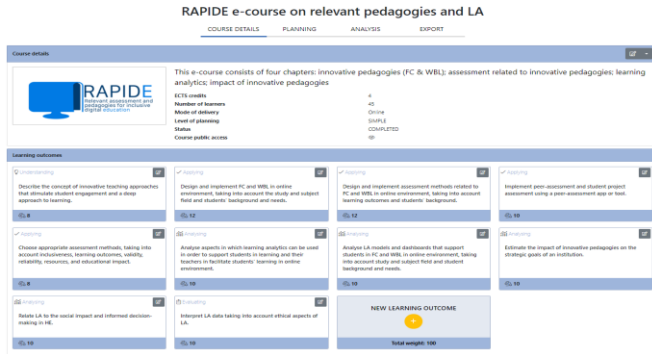
Cluster analysis C, G, A, T
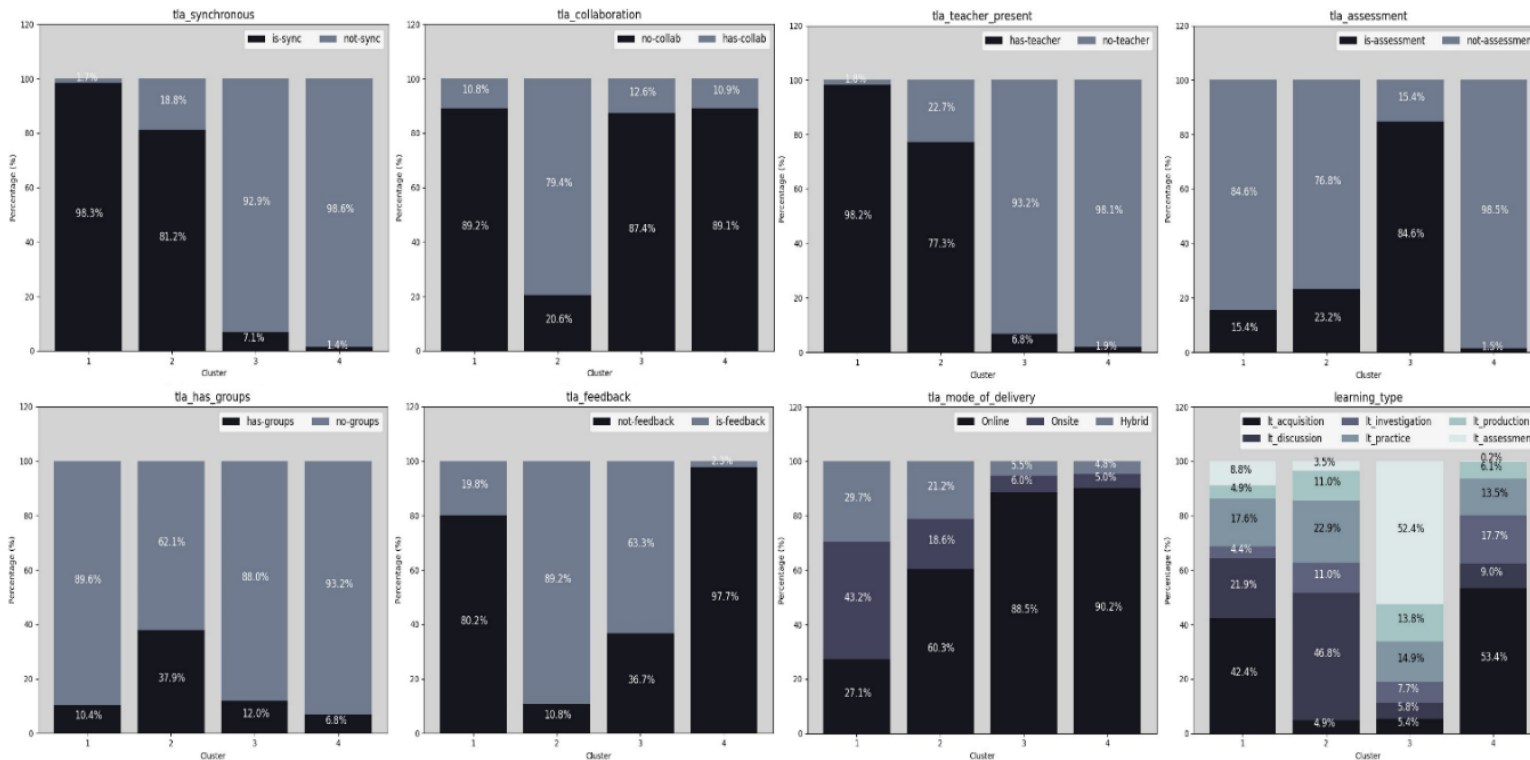
Generating independent learning (G)

The most commonly used LD nucleobase (30.61%). This nucleobase was primarily asynchronous without a teacher being present, focused on the individual learner, primarily online. The pedagogical focus of G was on the acquisition of knowledge, skills, and competences.

Activity Type: Asynchronous ('not-sync') and without a teacher ('no-teacher'), similar to Assessment (A) but stands out for not being assessment-focused ('not-assessment' at 98%).

Structure: Highly individual-focused ('no-collab' at 89%, 'no-groups' at 93%), suggesting an emphasis on independent work.

Mode of Delivery: Almost exclusively online (90%), the highest among all clusters.

Learning Type: Predominantly 'lt_acquisition' (53%), but without assessments, making it unique in its focus on individual learning acquisition.

FP-Growth Insights: There was almost certain confidence (around 99.8%) that in online learning settings focused on individual acquisition ('lt_acquisition') with no teacher ('no-teacher') or collaboration ('no-collab'), group activities are almost invariably absent ('no-groups').
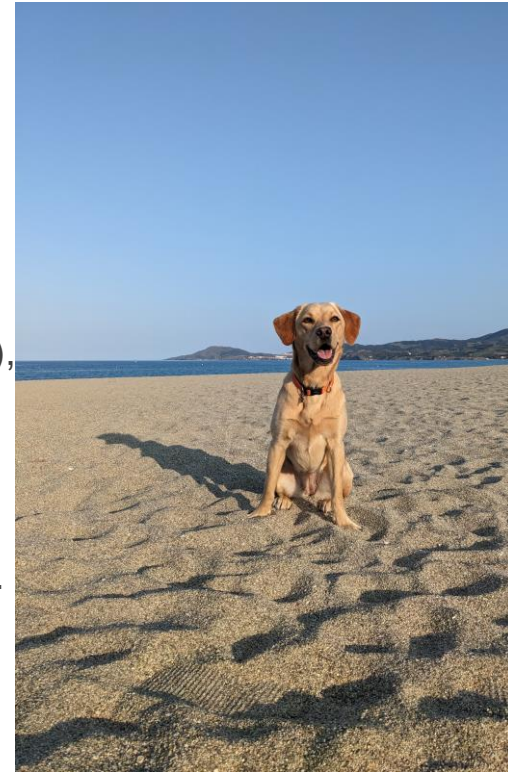
Traditional classroom activity (T)

The second most commonly LD nucleobase (29.57%). This nucleobase was primarily synchronous in the classroom with a teacher present and teacher-led, and would typically form part of a lecture, seminar, teaching session, or lab session. Like G also in this activity T the pedagogical focus was on acquisition of knowledge, skills, and competences, but the main differences seemed to be teacher presence and the focus on synchronous, mostly face-to-face activities.

- **Activity Type**: Predominantly synchronous ('is-sync' at 98%) with a teacher present ('has-teacher').
- **Structure**: Highly individual-focused ('no-collab' at 89%, 'no-groups' at 89%), suggesting a lack of collaborative activities.
- **Mode of Delivery**: Mostly onsite (43%), which was unique among the clusters.
- **Learning Type**: Strong focus on 'lt_acquisition' (42%), emphasizing the traditional method of information transfer.
- **FP-Growth Insights:** The algorithm exhibited extremely high confidence (nearly 99.7%) that in settings focused on individual acquisition of information ('lt_acquisition') and where group activities were absent ('no-groups'), a teacher was almost certainly present ('has-teacher').
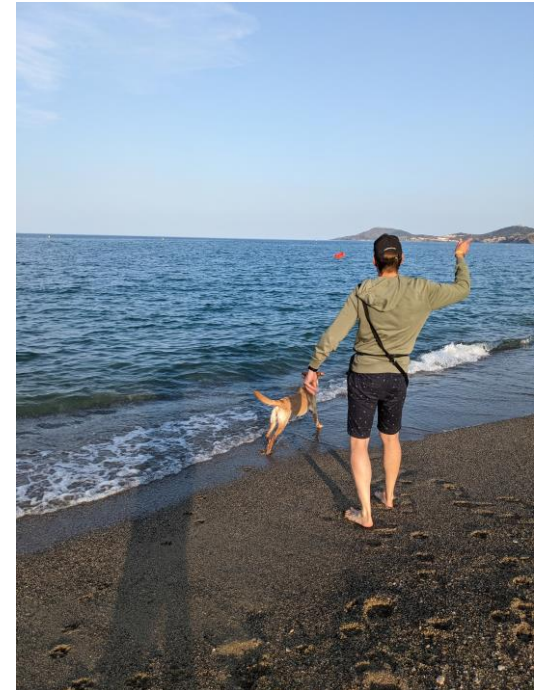
Assessment activity (A)

The third most commonly used LD nucleobase (24.35%) was assessment activity (A). This nucleobase was primarily asynchronous without a teacher being present, focused on the individual learner, and the pedagogical focus was on the assessment of knowledge, skills, and competences, and providing/receiving feedback.
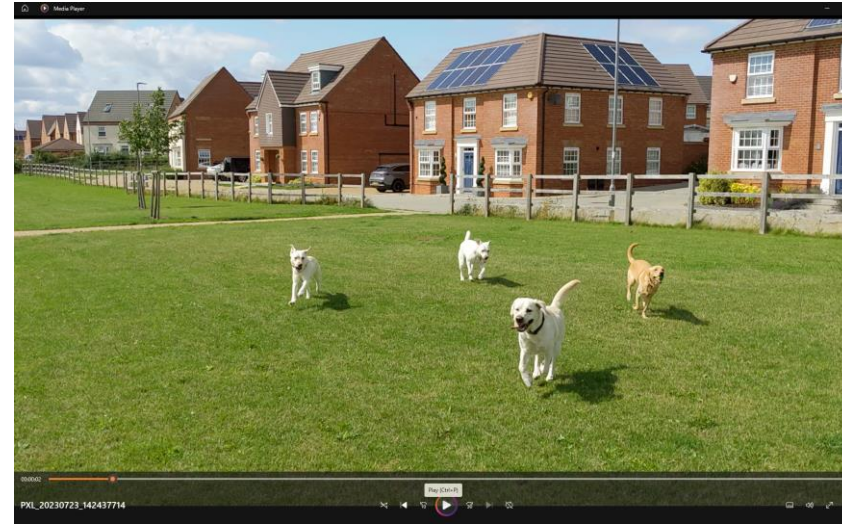
- **Activity Type**: Distinguished by its asynchronicity ('not-sync' at 93%) and absence of a teacher ('no-teacher' at 93%).
- **Structure**: Individual-focused ('no-collab', 'no-groups'), but uniquely characterized by a high focus on assessments ('is-assessment' at 85%).
- **Mode of Delivery**: Overwhelmingly online (88%).
- **Learning Type**: Leans towards 'lt_assessment' (52%), suggesting it had assessment-oriented courses.
- **FP-Growth Insights**: The algorithm showed near certainty (around 99.1%) that in online environments focused on assessment ('lt_assessment'), where neither collaboration ('no-collab') nor a teacher ('no-teacher') was involved, there were likely no group activities ('no-groups').

Albuquerque, J., Rienties, B., Divjak, B. (Submitted: 02-10-2023). Unpicking the DNA of learning design decisions. 14th LAK conference, Kyoto, Japan
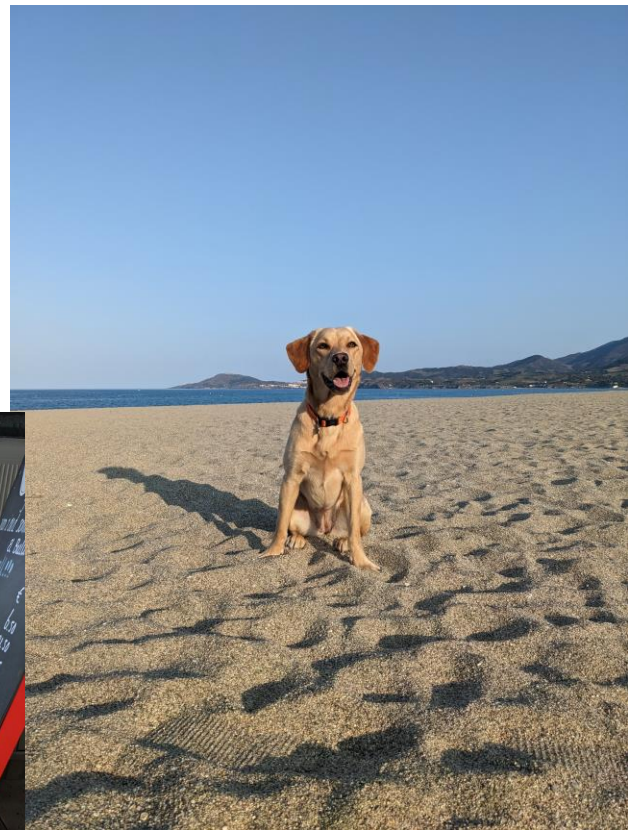
Collaborative classroom activity (C)

The least commonly used LD nucleobase (15.46%). This nucleobase was primarily synchronous in various online, blended, and face-to-face formats with a teacher present, but in contrast to the three other nucleobases was highly collaborative, where the pedagogical focus was on discussion of knowledge, skills, and competences, and providing/receiving feedback.

● Activity Type: Synchronous ('is-sync'), but uniquely characterized by its strong emphasis on teacher presence ('has-teacher') and feedback ('is-feedback' at 89%).

● Structure: Highly collaborative ('has-collab' at 79%), which sets it apart from other clusters.

● Mode of Delivery: Primarily online (60%), notable for its blend of online and collaborative elements.

● Learning Type: A particular focus on 'lt_discussion' (46.8%), highlighting dialogic forms of learning.

● FP-Growth Insights: There was high confidence (about 97%) that when the environment was synchronous ('is-sync') and has no group activities ('no-groups'), it was highly likely that a teacher will be present ('has-teacher'). Furthermore, there is also strong confidence (around 96%) that in settings where a teacher was present and feedback is given ('is-feedback'), the activity is likely to be synchronous ('is-sync').

Albuquerque, J., Rienties, B., Divjak, B. (Submitted: 02-10-2023). Unpicking the DNA of learning design decisions. 14th LAK conference, Kyoto, Japan

Next steps

1. How to use AI to identify common design patterns by teachers?

2. How to use AI to semi-automate some of the design decisions?

3. How to use AI to provide automatic recommendations of TLA activities

iLed
Innovating Learning Design
in Higher Education

EDUtech Asia 2023 Conference Day 1 @ 09:40

Keynote: Implementing learning analytics and learning design at scale

Many educational institutions are considering implementing learning analytics with the increased availability of learner and learning data. However, many questions are asked about whether or not to implement learning analytics: Where do you start? What should you do first? Is the data accurate? What about ethics and privacy? How can we effectively support our staff to use data? How do you know that this is a cost-effective and pedagogically sound approach? Does it actually work?

The Open University (OU) in the UK is one of the few organisations that have implemented learning analytics and learning design at scale for over a decade. With over 170.000 learners and more than 400 courses, the OU has implemented a range of world-leading approaches, including Analytics4Action, OU Analyse, and OU Learning Design Initiative.

In this keynote, Bart will share insights from 10 years of large-scale implementation, what has worked, what has not, and what evidence we have found from over 100 studies on the use and effectiveness of learning analytics, and how we can effectively support the key stakeholders in learning analytics: educators and students.

Bart will help you:

- Understand where to start with learning analytics
- Understand how to effectively support your staff to use data
- Critically review whether learning analytics is something for your organization

Bart Rienties, Professor in Learning Analytics, Institute of Education Technology, The Open University

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? Help

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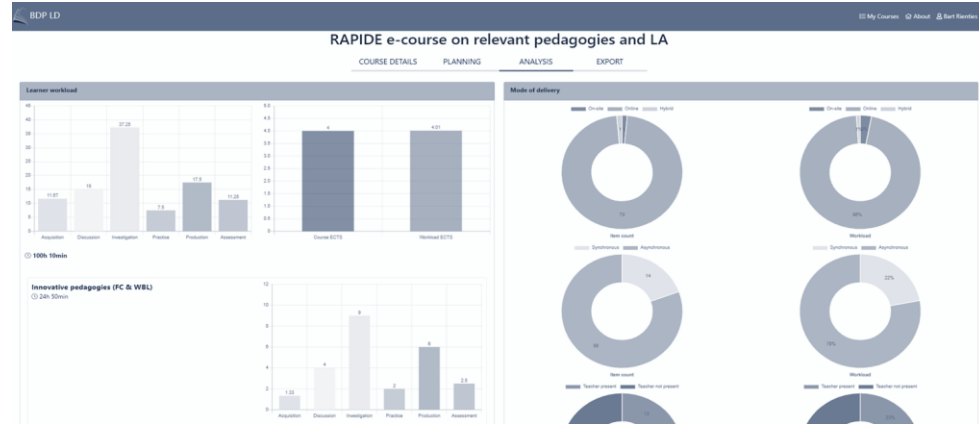
Co-funded by the
Erasmus+ Programme
of the European Union

[W10] 7 Nov (PM) - Applying and translating learning design and analytics approaches in your institution

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