D. Grabar, B. Divjak, P. Vondra

Learning Analytics Laboratory
University of Zagreb, Faculty of Organization and Informatics
Learning Design

• Learning Design is a methodology for teachers, course designers and educational professional to make more informed decisions in how learning activities and interventions are designed.

• It refers to deliberate choices about what, when, where and how to teach. Decisions need to be made about the content, structure, timing, pedagogical strategies, sequence of learning activities, and the type and frequency of assessment in the course, as well as the nature of technology used to support learning.
Sources / References / Inputs

• Constructive alignment (Biggs & Tang, 2011)
• European Qualification Framework
• FOI projects and research activities
• The Conversational Framework
• Existing Learning Design Methodologies
  • Open University LD
  • ABC Learning Design (University Collage London)
The Conversational Framework

• Developed by Diana Laurillard (2002.)
  https://www.youtube.com/watch?v=oZzlNdyuaF0

The Conversational Framework embraces the notion that teaching is a dialogue, and shows what it takes to learn, using the ideas of instructionism, social learning, constructionism, and collaborative learning.

6 Learning Types describing how students are learning.
• Acquisition
• Practice
• Discussion
• Inquiry
• Collaboration
• Production
ABC Learning Design

- [https://abc-ld.org/](https://abc-ld.org/)
- [https://www.ucl.ac.uk/learning-designer/](https://www.ucl.ac.uk/learning-designer/)
Open University Learning Design

- [http://www.open.ac.uk/blogs/learning-design/?p=364](http://www.open.ac.uk/blogs/learning-design/?p=364)

## Workload items

<table>
<thead>
<tr>
<th>#</th>
<th>Item</th>
<th>Assimilative</th>
<th>FHI (mins)</th>
<th>Comm. (mins)</th>
<th>Prod. (mins)</th>
<th>Exper. (mins)</th>
<th>Int/Adap. (mins)</th>
<th>Assess. (mins)</th>
<th>Tuition (mins)</th>
<th>Total (hours)</th>
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<td>Word count</td>
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<td>Other (mins)</td>
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</tbody>
</table>

Add a new unit  Save changes
## Mapping OU - ABC

<table>
<thead>
<tr>
<th>ABC Learning Design</th>
<th>Acquisition</th>
<th>Discussion</th>
<th>Investigation</th>
<th>Practice (f2f)</th>
<th>Practice (online)</th>
<th>Production</th>
<th>Collaboration</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Learning through acquisition is what learners are doing when they are listening to a lecture or podcast, reading from books or websites, and watching demos or videos</td>
<td>Learning through discussion requires the learner to articulate their ideas and questions, and to challenge and respond to the ideas and questions from the teacher, and/or from their peers</td>
<td>Learning through investigation guides the learner to explore, compare and critique the texts, documents and resources that reflect the concepts and ideas being taught</td>
<td>Learning through practice enables the learner to adapt their actions to the task goal, and use the feedback to improve their next action. Feedback may come from self-reflection, from peers, from the teacher, or from the activity itself. If it shows them how to improve the result of their action in relation to the goal</td>
<td>Learning through production is the way the teacher motivates the learner to consolidate what they have learned by articulating their current conceptual understanding and how they used it in practice</td>
<td>Learning through collaboration embraces mainly discussion, practice, and production. Building on investigations and acquisition it is about taking part in the process of knowledge building itself</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Open University</th>
<th>Assimilative</th>
<th>Communication</th>
<th>Finding and handling information</th>
<th>Experiential</th>
<th>Interactive/Adaptive</th>
<th>Productive</th>
<th>Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Use this category to allocate time to activities where the students are asked to communicate with at least one other person, who can be a student, a tutor or someone else. Examples include forum activities such as commenting on each other’s posts or discussing a topic</td>
<td>Use this category to allocate time to activities where students have to find or manipulate information. This can include searching for library articles or case law, engaging with an Interactive database, or interpreting charts or tables</td>
<td>Use this category to allocate time to activities where students are learning from direct experience in a real-world situation, such as carrying out an experiment, building a model of something or applying a method in a real-life context</td>
<td>Use this category to allocate time to activities where students are asked to engage with a simulated environment. This can include an interactive learning game, a simulation of a phenomenon, or a role play</td>
<td>Use this category to allocate time to activities where the students are asked to produce something. This can for instance be a written answer, a diagram, a photograph, a voice recording or something else</td>
<td>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.</td>
<td></td>
</tr>
</tbody>
</table>
Our goals

**Vertical alignment**
- Alignment of learning outcomes (LOs) on study programme level with LOs on course level

**Horizontal alignment**
- Constructive alignment

**Workload planning**
- Student workload
- Teacher workload

**Resource planning**
- Onsite (f2f), online, blended, hybrid

**Innovative pedagogies support**
- FC, WBL....

**Feedback on quality of course design to teachers, students, decision-makers**
- Learning analytics tool, dashboards
From planning to online tool
BDP LD Tool

https://learning-design.eu/

- Free to use
- User registration and login required
- Community driven
  - Collaboration
  - Course design sharing

The BDP tool is a research-based, innovative, constructive-alignment oriented and modular solution based on learning outcomes (LOs) and learner workload as foundations of learner-centered learning approach. It is based on:

- **Need**
  - Made to respond to the institutional need for a tool that enables learning design based on course and study LOs

- **Research**
  - Designed according to the recent findings described in relevant literature and theoretical frameworks related to LD and LA

- **Experience**
  - Created on the existing LD concepts and tools, particularly the ABC LD from University College London and the Open University LD

**Key principles**

BDP concept and tool are developed in line with following principles:

- Vertical alignment of LOs at the study program level with those at the course level, in line with the principles of the Bologna Process and the European

- Resource planning, as one of the common elements within LD for all modes of delivery (F2F, online, blended and hybrid) to increase the flexibility of
BDP LD Tool – User dashboard

My courses

OVERVIEW

- All courses
- My courses
- Shared with me

Search...

1. Mathematics 101
   - 2 ECTS
   - 120, Blended

2. Teaching entrepreneurial competences
   - 2 ECTS
   - 50, Online

3. Test
   - 2 ECTS
   - 120, Blended

4. Informatics teacher training
   - 5 ECTS
   - 20, Blended

   - 2 ECTS
   - 30, Blended

6. Effective online videoconferencing for teachers
   - 2 ECTS
   - 20, Online
### BDP LD Tool – Main course details

#### Teaching entrepreneurial competences

<table>
<thead>
<tr>
<th>Course details</th>
</tr>
</thead>
<tbody>
<tr>
<td>MOOC</td>
</tr>
<tr>
<td>ECTS credits</td>
</tr>
<tr>
<td>Number of learners</td>
</tr>
<tr>
<td>Mode of delivery</td>
</tr>
<tr>
<td>Status</td>
</tr>
<tr>
<td>Course public access</td>
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</table>

#### Learning outcomes

<table>
<thead>
<tr>
<th>Understanding</th>
<th>Applying</th>
<th>Applying</th>
<th>Analyzing</th>
<th>Creating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Describe pedagogical approaches, teaching and assessment methods that enhance students’ engagement to develop students’ entrepreneurial competences in online learning environment.</td>
<td>Use appropriate technology to support sound pedagogical approaches that contribute to the development of students’ entrepreneurial and problem-solving skills.</td>
<td>Integrate the learning material available in the MOOC with other appropriate teaching and learning resources to foster entrepreneurial competences and ethical and sustainable thinking.</td>
<td>Identify what entrepreneurial competences students need in the contemporary world to seize and create opportunities and meet challenges to generate value.</td>
<td>Create interactive learning designs and student-centred activities to foster entrepreneurship.</td>
</tr>
<tr>
<td>10</td>
<td>10</td>
<td>10</td>
<td>15</td>
<td></td>
</tr>
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</table>
# Teaching entrepreneurial competences

<table>
<thead>
<tr>
<th>COURSE DETAILS</th>
<th>PLANNING</th>
<th>ANALYSIS</th>
<th>EXPORT</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Introduction</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Competences, skills and values in general</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Developing entrepreneurial competences</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Real-world requirements for entrepreneurial competences</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Topic learning outcomes:
- Describe pedagogical approaches, teaching and assessment methods that enhance students’ engagement to develop students’ entrepreneurial competences in online learning environment. (70%), Identify what entrepreneurial competences students need in the contemporary world to seize and create opportunities and meet challenges to generate value. (10%)
- Describe pedagogical approaches, teaching and assessment methods that enhance students’ engagement to develop students’ entrepreneurial competences in online learning environment. (10%), Evaluate individual and group strengths and weaknesses of students and staff regarding hybrid and digital teaching and learning about entrepreneurial competences. (40%), Evaluate the learning process and students’ acquisition of learning outcomes related to entrepreneurial competences. (10%)

**Acquisition:** 20 min

**Estimated Time:**
- Introduction: 1.3h
- Competences, skills and values in general: 11h
- Developing entrepreneurial competences: 2h
- Real-world requirements for entrepreneurial competences: 7h
Teaching entrepreneurial competences

- **Competences, skills and values in general**

  - **Topic learning outcomes**

  - **Entrepreneurial competences**
    - **Pre-reading**
      - Reading materials regarding the basics of entrepreneurial education. (We are deciding whether to create a new document referencing multiple sources or choosing an already existing paper)
    - **Quiz**
      - Formative assessment based on the pre-reading. Multiple choice questions. Can be used as an entry pre-competence test (to check the level of teachers' pre-competence).
    - **Videos of best practice**
      - Short videos (3 - 6 mins) with good examples. Can be existing or newly recorded videos. We shall choose ~3 examples of good practices to present (if we find some pre-existing videos we can have more than 3)
    - **Discussion based on reading, videos and own experiences**
Edit TLA

Name: Quiz
Description: Formative assessment based on the pre-reading. Multiple choice questions. Can be used as an entry pre-competence test to check
Learning type: Assessment

Activity delivery:
- Online
- On-site
- Hybrid

Synchronous
Asynchronous

Collaboration:
- Teacher
- Automated
- Peer
- Other

Feedback provider:
- Teacher
- Automated
- Peer
- Self
- Other

Assessment:
- Formative

Assessment type:
- Formative

Assessment points:
- 3

Assessment provider:
- Teacher
- Automated
- Peer
- Self
- Other

Save
Cancel
Delete
Introduction

- 62h 30min

Assessment

- 1h 20min

Competences, skills and values in general

- 11h 0min

BDP LD Tool – Analysis

Mode of delivery

- Online

Items count

- 21
- 15%

Workload

- Synchronous
- Asynchronous

Assessment types count

- Formative
- Summative

Assessment types by points

- Teacher
- Automated
- Peer
- Self
- Other
### BDP LD Tool – Analysis

**Assessment and learning outcomes**

<table>
<thead>
<tr>
<th>Topic</th>
<th>Formative</th>
<th>Summative</th>
<th>Description</th>
<th>Percentage</th>
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</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Competencies, skills and values in general</td>
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<td>0</td>
<td>70%</td>
<td>10%</td>
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<tr>
<td>Developing entrepreneurial competences</td>
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<td>40%</td>
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<tr>
<td>Real-world requirements for entrepreneurial competences</td>
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<td>10%</td>
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</tr>
<tr>
<td>Relevant pedagogical approaches</td>
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<td>80%</td>
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<td>Evaluating the digital teaching and learning skills of students and staff</td>
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<td>10%</td>
<td>50%</td>
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<td>Learning resources</td>
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<tr>
<td>Evaluation and quality assurance</td>
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</table>

**Total**

- Formative: 52
- Summative: 55
- Total: 107

100%
Show Case

Teaching entrepreneurial competences
MOOC developed within Erasmus+ project
Project lead at FOI: prof.dr.sc. Blaženka Divjak

Project details:
https://projects.foi.hr/projects/public/active/en/443

https://learning-design.eu/en/preview/0d9b6d5be9a95f2edbbb0ce0/details