

CBL Implementation Continuum*

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Learning Rationale: why are students learning?

Mild CBL:	Moderate CBL:	Intense CBL:
<ul style="list-style-type: none"> Interaction with the real world Passive impact on the real world Broad big ideas Wicked problems Actionable challenges Challenges of personal choice Solution design 	<ul style="list-style-type: none"> Interaction with the real world Active impact on the real world Broad big ideas Wicked problems Actionable challenges Challenges of personal choice Challenges of profound personal relevance Solution design 	<ul style="list-style-type: none"> Interaction with the real world Active and immediate impact on the real world Broad big ideas Wicked problems Actionable challenges Challenges of personal choice Challenges of profound personal relevance Solution design

Learning Objectives (LOs): towards which goals are the students learning?

Mild CBL:	Moderate CBL:	Intense CBL:
<ul style="list-style-type: none"> Reflection on existing knowledge and skills is facilitated Students mainly work towards pre-defined specific learning objectives 	<ul style="list-style-type: none"> Reflection on existing knowledge and skills is facilitated A pool of pre-defined broad LOs (incl. academic and 21st-century skills) is presented Students are independent in choosing LOs from the pool 	<ul style="list-style-type: none"> Reflection on existing knowledge and skills is facilitated Students are independent in defining personal LOs Academic knowledge and 21st-century skills are encouraged

Content Knowledge (CK): what are the students learning?

Mild CBL:	Moderate CBL:	Intense CBL:
<ul style="list-style-type: none"> Groups of students together gain inter-/trans-disciplinary knowledge (content and soft skills) The scope of CK is mainly defined by the course The scope of CK is partially defined by students' challenge investigation needs 	<ul style="list-style-type: none"> Groups of students together gain inter-/trans-disciplinary knowledge (content and soft skills) The scope of CK is partially defined by the course The scope of CK is partially defined by students' challenge investigation needs 	<ul style="list-style-type: none"> Students independently gather disciplinary knowledge (content and soft skills) A group of students combine their disciplinary knowledge and build an inter-/trans-disciplinary knowledge base The scope of CK is entirely defined by students' challenge investigation needs

Learning Activities: how are the students learning?

Mild CBL:	Moderate CBL:	Intense CBL:
<ul style="list-style-type: none"> Students (individuals or groups) engage with a wicked problem (i.e., big idea) They identify an actionable challenge They deeply investigate a challenge (incl. scheduled engagement with the primary stakeholder) They design a consciously chosen solution They (indirectly/directly) implement the solution in the real world They reflect on the possible effects of the solution 	<ul style="list-style-type: none"> Students (individuals or groups) engage with a wicked problem (i.e., big idea) They identify an actionable challenge They deeply investigate the challenge They independently engage with the primary stakeholder They design a consciously chosen solution They (indirectly/directly) implement the solution in the real world They evaluate the effects of the solution A cycle of reflecting and documenting follows the process 	<ul style="list-style-type: none"> Individual students engage with a wicked problem (i.e., big idea) Individual students identify immediate actionable challenges Students form groups based on their actionable challenge The group deeply investigates the challenge The group engages with any relevant stakeholder independently The group designs a consciously chosen solution The group directly implements the solution in the real world The group evaluates the effects of the solution A cycle of reflecting, documenting, and sharing with the public follows the process

Teacher Role: how is the teacher facilitating the students' learning?

Mild CBL:	Moderate CBL:	Intense CBL:
<ul style="list-style-type: none"> A learning supervisor (expectation manager, process facilitator) Field experts and professional advisers 	<ul style="list-style-type: none"> A learning supervisor (expectation manager, process facilitator) A coach (a learning guide) Field experts and professional advisers 	<ul style="list-style-type: none"> A learning supervisor (expectation manager, process facilitator) A coach (a learning guide, co-researcher/co-designer/co-learner) Field experts and professional advisers

Materials & Resources: with what are the students learning?

Mild CBL:	Moderate CBL:	Intense CBL:
<ul style="list-style-type: none"> Teachers prepare guiding resources Students must familiarise themselves with the guiding resources Students are encouraged to explore additional resources Technology can be used 	<ul style="list-style-type: none"> Teachers prepare guiding resources Students can choose to familiarise themselves with the guiding resources Students are encouraged to explore additional resources Open access to technology is provided 	<ul style="list-style-type: none"> Teachers prepare guiding resources Students can choose to familiarise themselves with the guiding resources Students are encouraged to explore additional resources Open access to state-of-the-art technology is provided

Grouping: with whom are the students learning?

Mild CBL:	Moderate CBL:	Intense CBL:
<ul style="list-style-type: none"> Students form a group of co-learners Inter-/trans-disciplinary collaboration is fostered 	<ul style="list-style-type: none"> Students form a multidisciplinary group of co-learners Inter-/trans-disciplinary collaboration is fostered 	<ul style="list-style-type: none"> A multidisciplinary group of co-learners consists of: <ul style="list-style-type: none"> – students from different disciplines – coaches (teachers) – stakeholders Inter-/trans-disciplinary collaboration is fostered

Location & Time: where and when are the students learning?

Mild CBL:	Moderate CBL:	Intense CBL:
<ul style="list-style-type: none"> Fixed learning in the real world Fixed L&T for the offered learning activities Flexible L&T for self-regulated learning and group work A collaborative virtual and/or physical workspace is accessible by schedule 	<ul style="list-style-type: none"> Semi-fixed learning in the real world Semi-fixed L&T for the offered learning activities Flexible L&T for self-regulated learning and group work A collaborative virtual and/or physical workspace is accessible by schedule 	<ul style="list-style-type: none"> Flexible learning in the real world Flexible L&T for the offered learning activities Flexible L&T for self-regulated learning and group work A collaborative virtual and/or physical workspace is constantly accessible

Assessment: how is the students' learning assessed?

Mild CBL:	Moderate CBL:	Intense CBL:
<ul style="list-style-type: none"> The learning product and process are assessed Teacher- and/or stakeholder-defined criteria include: <ul style="list-style-type: none"> – the incorporation of the acquired content and skills into a solution design – the feasibility of the solution Critical reflection on the process/progress is assessed Teachers and/or stakeholders conduct the assessment 	<ul style="list-style-type: none"> The learning product and process are assessed Teacher- and/or stakeholder-defined criteria include: <ul style="list-style-type: none"> – the incorporation of the acquired content and skills into a solution design – creativity and innovativeness of the design – the feasibility of the solution Critical reflection on process successes and failures is assessed Students can contribute to the assessment Teachers and/or stakeholders conduct the assessment 	<ul style="list-style-type: none"> The learning process is assessed The student and teacher-defined criteria include: <ul style="list-style-type: none"> – students' personal progress – students' decision making – the reflection on the creativity and innovativeness of the design – the reflection on the feasibility of the solution Critical reflection on process successes and failures is assessed Students and teachers choose the assessment procedure Students and teachers co-assess the process

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