Workshop
Coaching in Design Based Learning

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Workshop Agenda

- Introduction to coaching project
  - Project objectives and findings
  - Most common challenges and dilemmas
- Coaching Project Deliverables
  - Coaching propositions
  - 5 step coaching process
  - Coaching Experience Questionnaire
- Conclusions

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Introduction to coaching project

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Project objectives

- To answer the question ''What does good coaching in DBL entail?''
- To develop a theoretical framework and provide practical propositions for coaches
- To develop and validate a coaching tool to assess students' experiences

Methods
- Literature review (scaffolding, feedback and formative assessment)

Robots course
- Observations (Q3, Q4 2017) (N=6)
- Informal discussions with students (Q3 2017) (N= 12 groups)
- Discussion with teachers (Q4 2017)
- Video recording of coaching sessions (Q4) (9 groups/ 6 sessions)
- Reflective questions (answered by 18 groups on weekly basis) (Q3, 2018)

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Expectations

What do you expect to learn? **?** **(lack of clarity in terms of learning goals)**

What do you expect from coaches?

Need for Guidance
Technical support
motivation

Help when we are stuck
Keep us on track
Advice and directions
Stop us if we go to the wrong direction
Coaches sharing their experiences
Feedback/ critical questions

Design expectations
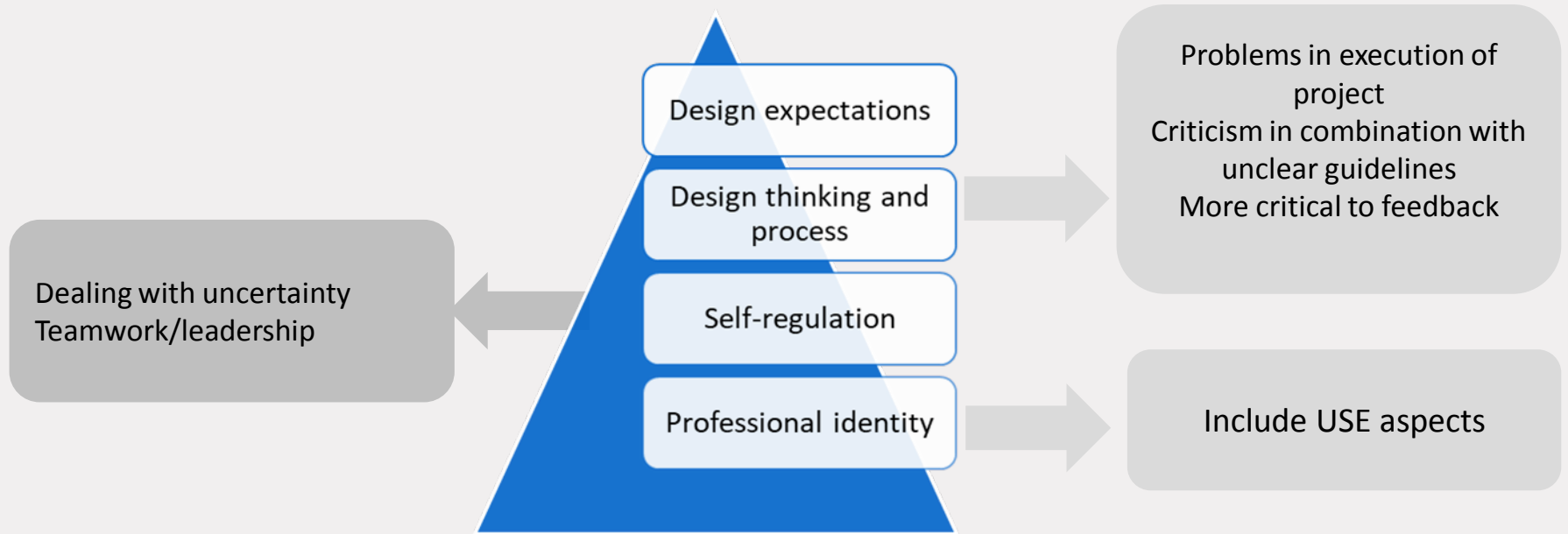
Design thinking and process

Self-regulation

Professional identity

What do coaches expect from you?

Professional attitudes
Ownership of project/ initiative
Good planning
Reflective/critical academic skills

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Challenges during coaching sessions

Most Frequent challenges

Problems in execution of project
Criticism in combination with unclear guidelines
More critical to feedback

Design expectations

Design thinking and process

Dealing with uncertainty
Teamwork/leadership

Self-regulation

Professional identity

Include USE aspects

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Motivation and learning

Most valuable learning

Specific, realistic, feasible end product
Making choices/narrowing down
Ask specific questions

Importance of teamwork
Planning and time management
Ownership of the learning process

Values for users/meeting users
Challenges of real life project
Professional attitudes
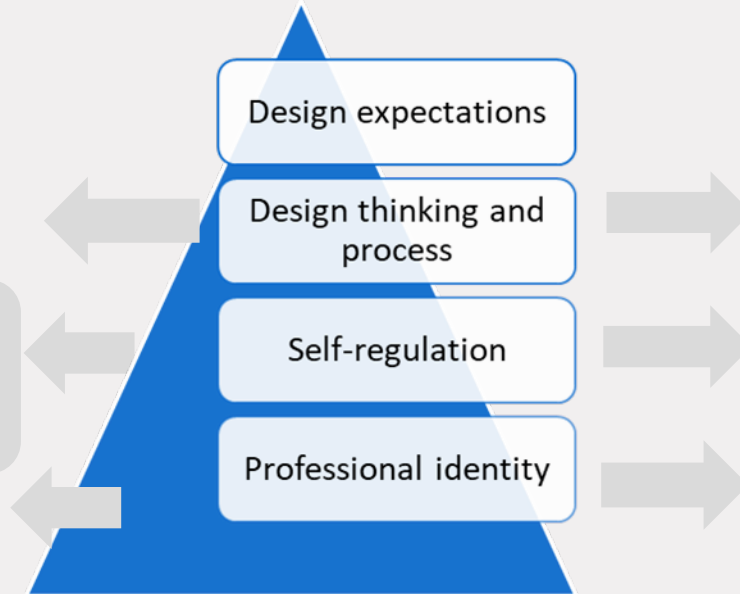
Most enjoyable part

Teamwork
Creativity in development of product
Gaining new knowledge
Testing/programming

Freedom/ Autonomy

Sense of achievement
Real life problem
Value for users
Research/doing real work
meaningful

Design expectations

Design thinking and process

Self-regulation

Professional identity

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Coaching environment and dialogue

Observations

- Coaching Environment should be safe and stimulating

- Dialogue among project team members should be encouraged

- Coaching dialogue among students and coaches (students reactive to feedback rather than proactive)

- Coaching techniques (active listening, summarizing, paraphrasing)

- Coaching interventions (supportive to challenging)

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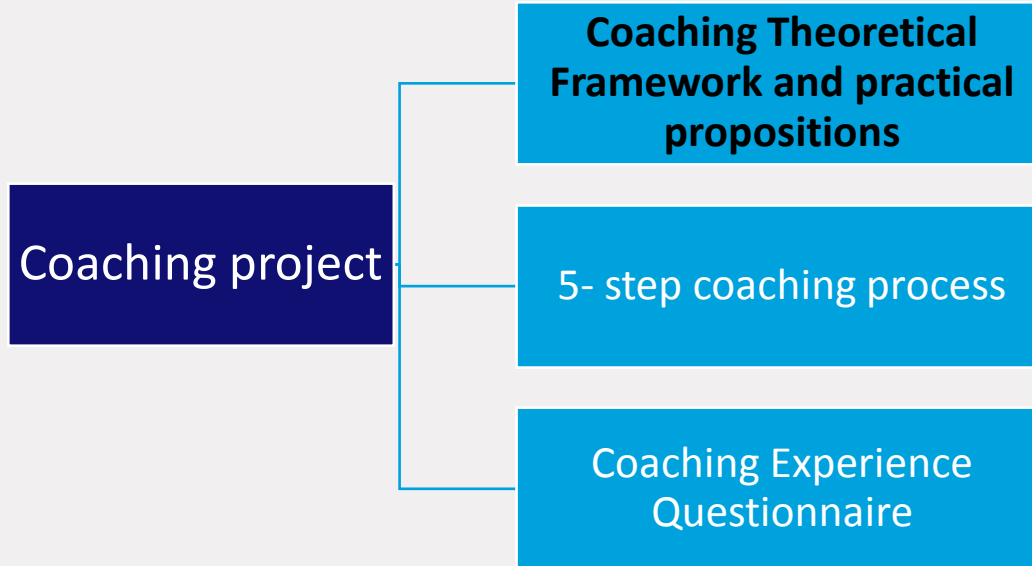# Summary of findings

What does good coaching entail?

- Addressing Design Expectations

- Fostering Students Design Thinking

- Fostering Self-regulation/ Self- Directed Learning

- Encouraging The Development of Professional Identity

- Promoting A Safe And Stimulating Coaching Environment

- Fostering Coaching Dialogue (Project Team, Coaches And Students)

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What are your challenges when coaching students?

What are your dilemmas or concerns?

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Most common challenges

- How to balance between focus on *process* and *product*?

- How to assess *process* and *product*?

- How to balance between *guidance* and *freedom*?

- How to understand what is the struggle of students?

- How to motivate the unmotivated students in a team?

- How much out of their ''comfort zone'' students should/can go?
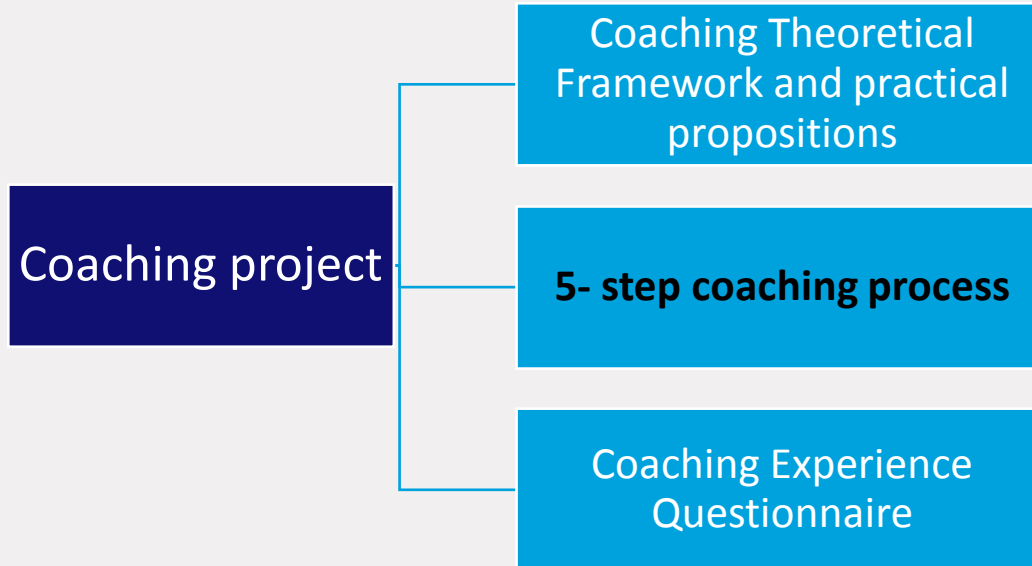
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Coaching Project Deliverables

Coaching project

Coaching Theoretical Framework and practical propositions

5- step coaching process

Coaching Experience Questionnaire

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Coaching propositions

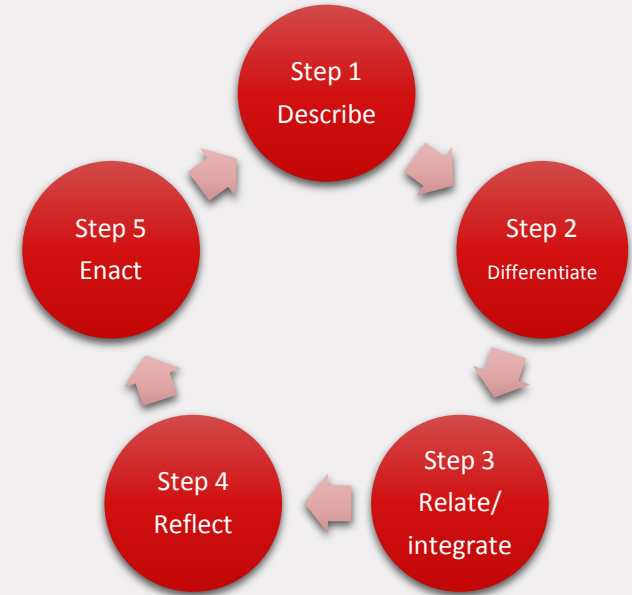| Coaching model	Propositions on how to coach. Good coaching…
Goal-directed coaching (cat-1: designing)	1.1.1 Should actively address 'expectation and learning-outcome-management'.
Goal-directed coaching (cat-2: design thinking and process)	1.2.1 Should constantly stimulate students to articulate their underlying thinking, the rationale and how the process is unfolding when they are generating good work.
Goal-directed coaching (cat-3: self- regulation)	1.3.1 Requires coaches to deliberately constrain the design process. 1.3.2 Requires exploring and answering where students are, would like to go and how to get there.

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Coaching propositions

Coaching model	Propositions on how to coach. Good coaching…
Goal-directed coaching (cat-4: professional identity)	1.4.1 Requires challenging students to explore their own PI and (in the long run) develop insight into the range of existing design conceptualizations. 1.4.2 Requires challenging students to explore a coach his/her PI and (in the long run) develop insight into the range of existing design conceptualizations. 1.4.3 Requires relating design activities and processes to personal and/or professional experiences or images of practices.
Coaching environment	2.1 Requires a safe and stimulating environment
Coaching dialogue	3.1 Requires stimulating dialogue amongst the project team 3.2 Coaching requires contributing to students coaching literacy 3.3 Requires all stakeholders to approach it as a continuous dialogue. 3.4 Requires a coach to deliberately make use of coaching interventions. 3.5 Requires a coach to adequately apply conversation skills.

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Coaching Project Deliverables

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                    ┌─── Coaching Theoretical
                    │    Framework and practical
                    │    propositions
                    │
Coaching project ───┼─── 5- step coaching process
                    │
                    │
                    └─── Coaching Experience
                         Questionnaire
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From coaching propositions to daily coaching practice: a 5- step coaching process

- Coaching process model provides a useful format for thinking about the steps students need to follow toward a learning objective.
- The coaching process model follows a logical sequence.
- This will help your students engage with it, and, ultimately, understand and retain it.
- 5 interrelated steps that each step build on the previous
- Each steps could be accompanied by related questions and/ or activities

Step 1
Describe

Step 2
Differentiate

Step 3
Relate/
integrate

Step 4
Reflect

Step 5
Enact

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Step 1. Describe

Students should be able to describe accurately what the problem is and what the concrete steps they have done so far were. Description is important for the next steps.

Exemplary Questions

- What would you like to get out of this meeting?

- If we look back at the previous week;

- What were the objectives we formulated?

- Add more [...]

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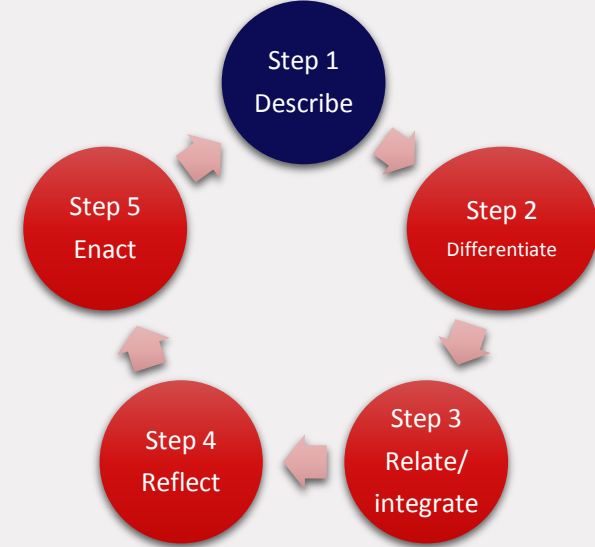
Step 2. Differentiate

Students should be able to discuss different alternatives. Coaches need to support at this stage as students might not have deep knowledge to do so.

Exemplary Questions

- What have you been doing this week and to what extent?

- Where the objectives realized?

- Why do you think do we offer such an open project where you need to find out and explore many issues on your own?

- So, now we change sides. Some of you will act as coaches for the next ten minutes.

- Which questions do you want to state to the other team-members?
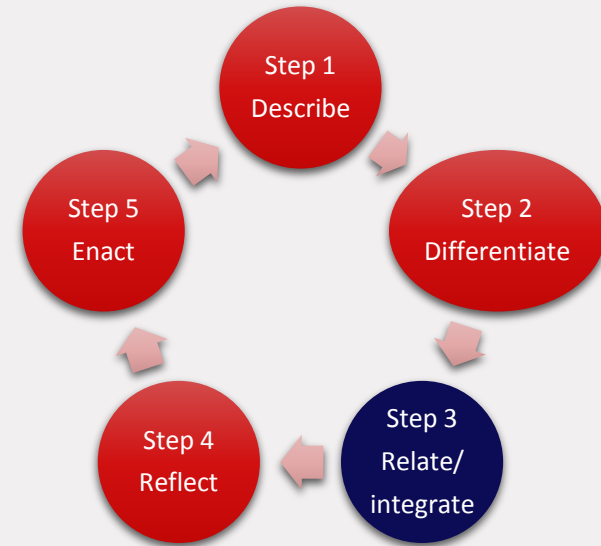
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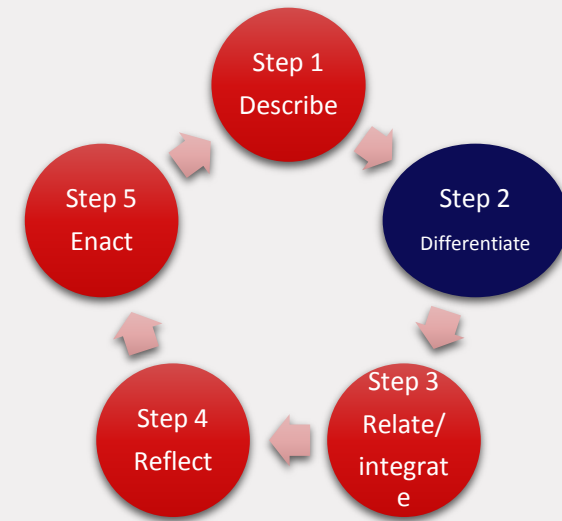
Step 3. Relate/Integrate

Students should be able to relate new concepts

Exemplary Questions

- Can you please summarize what we discussed during this meeting?

- What are the main lessons you learned?

- You stated that the user is important yet you do not involve the user in your design, how come?

- What does the openness of the project mean for your approach?
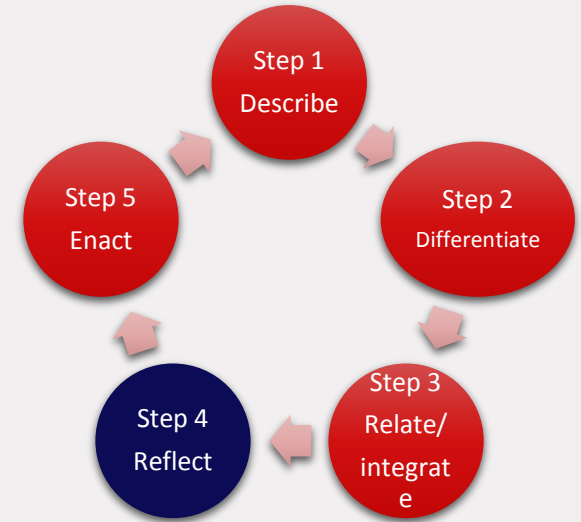
- Add more […]

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Step 4. Reflect

Students should reflect on the process

Exemplary Questions

- How do you need to deal with it?

- How will you cope with it?

- What could you possibly have done to improve the effectivity and effectiveness of your approach?
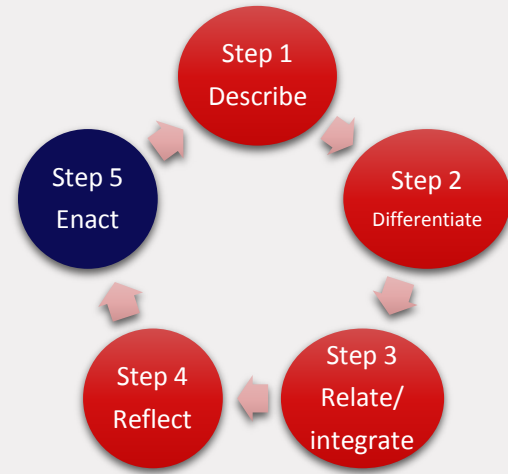
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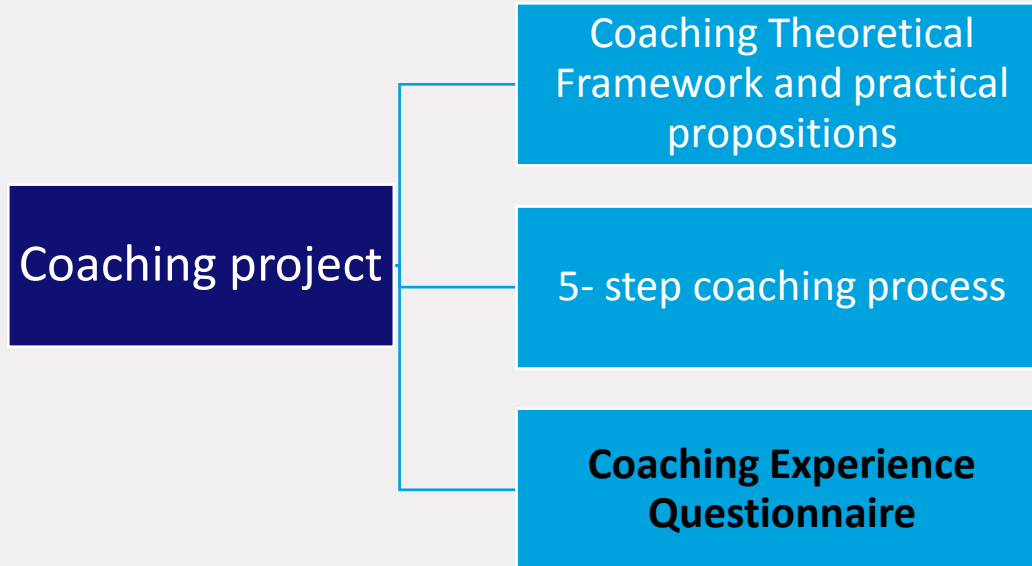
Step 5. Enact

Students should be able to make concrete next steps forward

Exemplary Questions

- How are you planning to move forward?

- What are the actions you will take?

- Add more […]

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Coaching Project Deliverables

Coaching project

- Coaching Theoretical Framework and practical propositions
- 5- step coaching process
- **Coaching Experience Questionnaire**

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Coaching questionnaire

- Evaluating coaching from students' perspective

- Questions follow the categories previously identified

- At the moment a long bank of questions

- Teachers' feedback on items?

- Validation of the developed questionnaire in Q3

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Conclusions

- Coaching is a holistic, communicative and social process

- Coaching emphasizes the development of both coaches and students

- ***Coaching is a dialogue*** wherein the coach and students strive for (joint) meaning-making and develop new shared understandings and insights

- Coaching should be seen as a ***form of continuous embedded formative assessment***

- Effective coaching implies ***targeting the right (underlying) skills/attitudes*** *and* ***setting the right constraints*** to guide the design process

Are there any questions?

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