**CO-CREATING THE SELF-ASSESSMENT RUBRIC OF THE CURRICULUM AGILITY PRINCIPLES**

**PROBLEM/QUESTION/CHALLENGE**

In today’s fast-changing society with continuously faster emerging new technologies, higher engineering education needs to be able to not only keep up with developments, but to anticipate them in a proactive way (Kamp, 2021; Kamp, 2016). In the past three years, Curriculum Agility has been on the agenda at several CDIO meetings and conferences (Brink, 2021a; Brink, Carlsson, Enelund, Georgsson, Keller, Lyng, & McCartan, 2021b; Brink, 2021b; Brink, Carlsson, Enelund, Georgsson, Keller, Lyng, & McCartan, 2020; Carlsson, Georgsson, & Hallenga-Brink, 2019) (Hallenga-Brink, & Georgsson, 2019; Hallenga-Brink, Georgsson, & Carlsson, 2018). In co-creation with workshop, roundtable, and working group participants, the definition of Curriculum Agility within educational institutions (university, faculty, department, or program) has been formulated as:

*“Curriculum Agility is about (engineering and design) curricula
that are proactively made responsive and adaptable to
changes in societal, industrial, and student characteristics and needs,
by having the innate capacity to change structures, learning outcomes, and learning activities in a timely manner.”*

In the working group activities at the Worldwide CDIO Conference in Århus in 2019, principles for Curriculum Agility were formulated (Brink, Carlsson, Enelund, Georgsson, Keller, Lyng, & McCartan, 2021b; Brink, et. al., 2020). With input from five other interactive sessions following this first working group day, the original set of principles has been re-worked and complemented to the following three clusters encompassing nine principles of Curriculum Agility:

*Curriculum Vision & Strategy principles*

1. *Educational Innovation: Towards Agility*
Encouraging initiatives and innovations that promote education that is responsive to change, dynamic in content, and flexible in didactics in order to be prepared for societal and technological changes.
2. *Management Approach: Change Culture*
Ensuring and maintaining a culture rather than a “one-person engagement” for change and innovation through entrepreneurial change management: being initiative-driven, and proactive rather than reactive.
3. *Stakeholder Involvement: Co-creation*
Involving both internal and external stakeholders in the change process and establishing structures and procedures for identifying and prioritizing stakeholders’ (changing) needs continuously.

*Curriculum Quality & Provision principles*

1. *Legislation and Policy: Reframing the Rules*
Finding the space for innovation within the interpretation space that legislation and policies hold, within collaborations on reform and reformulation moments, and being prepared to make concessions where needed in the details or framing of the changes.
2. *Organization and Governance: Responsive Administration*
Empowering an organizational structure that can effectively address the administrative system and its internal and external regulations, in order to guarantee implementation and support maintenance of the curriculum changes while safeguarding the quality.
3. *Decision Making Process: Accommodating Implementation*
Having efficient curriculum and course approval and adjustment processes: timeframes, steps required, number of persons involved, communication channels etc.

*Curriculum Design & Research principles*

1. Programme and Course Design: Dynamic Content and Flexible Education
Formulating holistic learning goals, such as integrated competencies, with interchangeable indicators that support dynamic teaching content and flexibility in the programme structure. Creating didactic flexibility: course choices, adjustable and customizable projects, opportunities for students to build their own profiles, multi- and interdisciplinarity etc.
2. *Pedagogy and Didactics: Scholarship of Teaching*
Having structures for supporting teachers’ constant developmental needs due to curriculum innovations, sustainability, inclusivity, and lifelong learning pedagogics, by promoting scholarship of teaching, providing pedagogical support, and collegial teaching teams.
3. *Learning Spaces: Flexible Solutions*
Utilizing diverse learning environments – blended, hybrid, social, and physical, allowing for flexibility of teaching and learning in format, place, and time.

For this second CDIO working group on Curriculum Agility, we invite participants of the 18th CDIO Worldwide Conference in Reykjavik to co-create a new step in this work: self-assessment rubrics for each principle. The aim of a self-assessment rubric is to give insights and to value the possibilities and obstacles present within different institutional contexts, enabling or hindering an agile (responsive, dynamic, flexible) curriculum. As the principles are holistic and address multiple levels in the universities’ hierarchy, as is fitting for the Wicked Problem curriculum change has become, it could be challenging to define each of the rubrics. There is not one solution that fits all. Obstacles in the change processes needed for curriculum agility can differ per region, country, university and even faculty or department. In addition, factors in the self-assessment rubric themselves can be dynamic over relatively short amounts of time. Therefore, smart, holistic rubric items will need to be (co-) created.

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**THINGS TO BE DONE BEFORE AND DURING THE CONFERENCE**

This working group will start working together remotely two months prior to the conference. Participants are expected to read two of the referenced materials: Brink, S.C. (2021), and Brink, S.C., Carlsson, C.J., Enelund, M., Georgsson, F., Keller, E., Lyng, R., & McCartan, C. (2021a). They will be provided after signing up by e-mailing the corresponding author.

In the first online meeting, questions can be asked, and muddy parts can be addressed. The framework for self-assessment will be presented. Approximately one month before the conference, in a second online meeting, a brainstorming activity will be used to start filling in the self-assessment framework. A draft version of the self-assessment will be made based on this output.

On the working group day during the conference, the draft version will be discussed in detail and modified accordingly. For those principles where it is possible, a decision will be made. For the more problematic principles, the sore spots will be carefully described, as input for further continuation of the Curriculum Agility co-creative process. Participants are stimulated to bring experiences from their own institutions and context into the working group. This way, a level of intersubjectivity can be reached.

**WRAP UP**

After the conference, the working group will submit a state-of-the-art paper for inclusion in the proceedings (after review by the Program Committee). The output of the working group day will be such that it can be easily merged into a paper. All active working group participants can be co-authors on that paper, if desired. Writing and communicating about the paper will be done via e-mail shortly after the conference, before the publishing of the proceedings.

**OTHER RELEVANT INFORMATION**

All CDIO conference participants are welcome to sign up. Because the principles are holistic, input from all layers of the university is welcome: from upper management, middle management, administration, pedagogical units, faculty, to laboratory technicians and student assistants in teaching. It is good to realize that a level of expertise and experience and/or vision and ideas on curriculum agility (in its wide sense from responsive educational organization, teaching dynamic content, to offering flexible, customized education to the students) will be useful to be able to formulate rubric indicators. The working group activities are meant to go beyond an introduction to Curriculum Agility, hence the preparatory work.

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