

Fostering and assessing students' creative and critical thinking skills in higher education

Objectives

Creativity and critical thinking are key skills for the complex and globalized economies and societies of the 21st century. A new project at the OECD Centre for Educational Research and Innovation (CERI) aims to support higher education institutions to enhance the quality of their teaching to foster students' creative and critical thinking.

The project will build an **international community of practice** around teaching, learning and assessing creativity and critical thinking in higher education. How do institutions currently foster and assess these skills as part of their teaching? How could they improve their practices? How can the higher education sector use these practices to enhance the quality of its teaching internationally?

Methodology

All participating institutions will design and document pedagogical activities, assessments and faculty development plans trying to intentionally foster creativity and critical thinking, as defined by a **common international rubric**. While pursuing this common goal, institutions and their faculty will preserve their **pedagogical freedom** and work within a discipline or with an interdisciplinary approach.

The **effects of the pedagogical interventions** on students and teachers will be monitored through a **quasi-experimental research design** involving pre- and post-testing on intervention and control groups. Qualitative reporting will complement quantitative data collection to provide evidence of the effects of the different pedagogies tested.

The selection of participants will take place early 2018, followed by two rounds of pedagogical intervention and data collection in the academic years 2018-19 and 2019-20.

Outputs and outcomes

The findings of the project will be published in an **international report** in 2021. The **monitoring instruments** developed for the evaluation of the effects of the interventions will also be made public. The **pedagogical resources** (rubrics, pedagogical activities, assessments) will be shared under a Creative Commons licence so that they can inspire faculty and institutions internationally.

Beyond contributing to the common good of teaching excellence in higher education, participating institutions will offer their faculty a unique opportunity for **professional development** and develop their **innovation and improvement capacity in teaching and learning** thanks to their involvement in an international network of like-minded institutions. Ultimately, the projects aims to trigger a sustainable improvement process in teaching and learning in higher education and beyond.

Terms and conditions for participation

The project is open to **all types of institutions** delivering higher education at **undergraduate level** in one or several disciplines or in **teacher education** at any education level. Ideally, a minimum of 500 students per domain and country should be involved in the intervention group, and twice as many in the control group. Final domains of implementation will be determined based on the interests of participants. It is recommended that at least 3 institutions per country join the project.

Participating institutions (or countries) will cover all **domestic costs** of the study (co-ordination, professional development, data collection, participation in 2 international meetings at OECD headquarters in Paris, etc.). They will also be requested to contribute to the **international costs** of the project (ranging from EUR 10 000 to 15 000 per year per institution, that is, EUR 40-60k for the entire duration of the project). The exact amount of this contribution will depend on institutions' size and number.

Do you want to take part?

The project welcomes interested countries and institutions to participate. Expressions of interest should be sent to Stéphan Vincent-Lancrin (stephan.vincent-lancrin@oecd.org) by **25 March 2018**. Interested institutions will be invited to information webinars and a face-to-face meeting in Paris will then be organized. A final commitment is expected by April 2018.

To find out more about our projects, please visit: www.oecd.org/edu/innovation



What will participating institutions have to do?

Institutions participating in the project commit to implementing pedagogical interventions that aim to foster their students' creative and critical thinking skills as well as their technical skills in their domain of study. The common element to all participants will be the definition of creative and critical thinking skills through a common rubric and a data collection based on the same survey instruments. While institutions will have a lot of flexibility and academic freedom, the implementation of the work will require local resources to reflect and possibly redesign their pedagogies, to collect data, and to liaise with the OECD Secretariat and other participating institutions and countries.

Implementing a pedagogical intervention based on an international rubric

- Recruit and engage professors and/or instructors (both for intervention and control groups)
- Work with the international rubric and provide feedback and local adaptations
- Hold an induction session with participating faculty and develop professional development plans to support them
- Develop and implement pedagogical activities, courses or projects aligned with the international rubric
- Assess in some way students' creative and critical thinking skills in addition to technical skills

Monitoring their pedagogical intervention according to an international protocol

- Use the control file designed by the OECD Secretariat to keep track of the students and faculty involved in the intervention for the data collection
- Give feedback on the monitoring instruments provided by the OECD Secretariat in English and get them translated in their language by professional translators
- Have students answer a questionnaire and take a test before and after the intervention, both for the intervention and control groups
- Have faculty answer a questionnaire before and after the intervention
- Organise and conduct interviews, course observations and focus groups with participants in the intervention to collect additional information
- Collect data from tests and questionnaires and make them available to the OECD Secretariat

Documenting and reporting their pedagogical work

- Document and share examples of lesson plans or pedagogical activities in an agreed format provided by the OECD
- Collect and share examples of student work illustrating different levels of proficiency in creativity and critical thinking
- Draft an institution report describing the intervention, its implementation and the associated learning
- Provide qualitative and contextual information about the intervention to the Secretariat in other forms if appropriate
- Collect video testimonies and examples if possible

Engaging in a community of practice and liaising with the OECD Secretariat

- Give feedback to the OECD Secretariat on research protocol, instruments, process, etc.
- Attend 2 international meetings per year in OECD headquarters in Paris
- Participate in project webinars (about 4 per year)
- Provide specific information about the project to the OECD Secretariat when necessary
- Exchange ideas, learn from and support other participating institutions
- Support the OECD Secretariat in making the effort visible in their country and internationally

