Stéphan Vincent-Lancrin, from the Center for Educational Research and Innovation of the Organisation for Economic Co-operation and Development (OECD-CERI), talks with Caroline Dominguez, coordinator of the 'Critical Thinking Across the European Higher Education Curricula – CRITHINKEDU' European project, about Critical and Creative Thinking education in Higher Education Institutions

Caroline Dominguez - For a minute forget all the international studies and recommendations! Why do you think that creativity and critical thinking are key skills in Higher Education? In your view, what are the main creativity and critical thinking aspects that need to be stressed in Higher Education and how they relate to each other? In your opinion, how can Higher Education effectively nurture creative and critical thinking in students? What are the challenges that Higher Education faces in the promotion of creative and critical thinking? What do you consider to be the best possible ways to tackle the mentioned challenges? What are the main recommendations that you can give to academic staff and leaders towards the widespread adoption of creative and critical thinking educational practices? How do you characterize the critical thinking education initiatives around Europe? What is your opinion about the importance and dissemination of projects like CRITHINKEDU?

**Stéphan Vincent-Lacrin -** Creativity and critical thinking are key skills in higher education (and more broadly) because they are important to our individual and collective wellbeing. Creativity is one of those higher order skills that makes human beings happy because it makes them human. As for critical thinking, it is not only critical to creativity, it is key to our democratic values. My feeling is that creativity is not particularly valued in higher education. We are obviously not starting from scratch though. Usually faculty members appreciate it when they have students expressing their creativity: it is a distinctive factor. But sometimes they prefer compliance to the social (or academic) order. Things are different for critical thinking, which is a mix of rational thinking and perspective taking. Rational thinking is one part of analytical thinking that is well developed and taught in academia. I think perspective taking is underdeveloped, even

though it is probably in higher education that students currently develop their critical thinking the most. Critical thinking is important in everyday life to tell apart misinformation and information, to assess what can be true or not, in brief, to be good citizens. This is only the most basic level of critical thinking, and one would expect a higher level in higher education. Science and research are both about creativity and critical thinking: improve things, invent new solutions, better understand problems, take new perspectives and propose new ways of thinking even though you admire the giants on which shoulders you are standing... It is debatable whether higher education institutions develop students' creativity and critical thinking, but it is clear to me that it is so much easier to do it at that level. Getting closer to the "knowledge frontier" also means you get closer to the controversies (and different perspectives) in the different fields. We all know that academics and scientists do not agree on everything and that there are a variety of theories explaining the same observed facts. While there is usually a more widely accepted theory, sometimes for good reason as some evidence certainly has more weight than others, alternative ideas are (and should) also be taught and learnt, to make us better understand why we believe in some theories or "facts" rather than others. I think projects on critical thinking around the world are very important, including when they mainly focus on rational thinking. I think that international projects such as CRITHINKEDU are particularly important to develop countries' and institutions' understanding and capacity to teach critical thinking. They also allow us to understand how it can be taught in different national academic contexts.

Caroline Dominguez - The OECD-CERI has a new project named "Fostering and assessing students' creative and critical thinking skills in higher education". What are the main goals of this project? What types of methodologies and approaches will be adopted to successfully achieve the above-mentioned goals? What specific interventions will be carried-out at undergraduate and teacher education levels? What key aspects of creative and critical thinking will be addressed during these interventions? What are the practical challenges that OECD-CERI is expecting to face during the project lifetime? In your view, what will be the key expected outcomes of this OECD-CERI project?

**Stéphan Vincent-Lacrin** - The main goals of the CERI project are not so different from what I have stated above. The OECD is predominantly an economic organization, so that the economic dimension is an important focus as well. In addition to the wellbeing and democratic aspects mentioned above, creativity and critical thinking are essential to innovation, which should be one of the drivers of economic prosperity in OECD

countries. Over the past years, most countries have engaged in curricular reform and advocated for the fostering of innovation skills: creativity and critical thinking are among the two top ones, and certainly the two on which most effort is needed.

The assumption of the CERI project is that the reason why we don't see much progress is not so much that people are opposed to the agenda. They may lack interest in it, but another major reason is that they don't see what it means from an operational perspective: what does it mean in practice to foster creativity and critical thinking as I teach my course? How do I develop simultaneously the know-what and know-how of my discipline while developing these qualities? What pedagogical approaches should I take? The CERI project will try to create a professional (and hopefully social) representation of what this means in higher education and thus makes these skills visible and tangible. We will use a rubric - that is an explicit (but very stylized) description of what the concerned skills mean and how they can be assessed - so that all participating countries and institutions share a similar objective, and then let institutions propose pedagogical interventions to foster these skills. We will thus develop a bank of ideas that all institutions in the world will be able to use, and hopefully inspire higher education institutions. We will also create a community of practice, that is opportunities for peer learning between people and in institutions interested in similar topics. While the first stage of the project is really about development, we will also try to develop monitoring instruments that will be available for institutions to use to evaluate if they are achieving their objectives. Of course, these instruments could also be used at the system level, and we will also involve policy makers and governments in the project. Each institution will decide on their interventions, but I expect that the pedagogical redesign will involve pedagogies focusing on active learning, from problem-based learning to design thinking. I also expect that more frontal pedagogies can be used, with a more careful or diverse selection of the content taught.

One big challenge we will have is about "objective" assessments of skills acquisitions. I mean assessment based on tests and exams rather than just self-reports. We may have interventions in many disciplines, and this implies that comparability will be difficult. Generic tests may work, but given the level of specialization of higher education, they tend not to be too convincing. Will we be able to make institutions change their exams or assessments by agreeing on some key characteristics of creativity and critical thinking? I hope so, but this remains to be seen.

More anecdotally, one difficulty will be to deal with all the prima donnas that are in higher education. Academics want to influence the world, sometimes like to argue about theories that make no difference to practice, and that will be a challenge. But

this is probably easier to deal with in an international context where compromise must be the norm.

We hope that the project will transform higher education in the medium term. This is not a research project, but really a capacity development project.

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