Never take it for granted: Making innovation and active learning work

This guest post is part of a series linked to the publication of G. Pleschova & A. Simon (eds.) Learning to teach in central Europe: Reflections from early career researchers. This post comes from Heidrun Maurer.

Innovation and active learning are nowadays often too easily welcomed catchphrases in Higher Education, whose successful implementation is taken for granted. Stanislava Kováčová from Masaryk University aimed at testing the added value of active learning herself.

To her own surprise, her experiment did not show any significant indication that her students had learnt more after active learning than after traditional lectures. In her
Does active learning work? The experiences of Brno and Tehran psychology students.

She presents collected data and reflects on how her students experienced passive lecture-focused and active student-focused learning. She tests three hypotheses: if students in an active learning environment participate more, gain higher level of content knowledge, or engage more. While the results are not statistically significant, they suggest counterintuitively a tendency for lecturing to be more effective practice than active learning.

Stanislava’s contribution encourages all of us to think more carefully of how to measure the success of the teaching methods that we employ. Her attempt showcases tellingly the complexity of measuring learning, but also how important it is to think about the methods of data collection. In Stanislava’s case, institutional policies made it difficult to gather reliable, comparable data. In addition, one needs to consider the right moment to test the effect of learning tools, especially when it is not only about content but also skills: is it right after the class, at the end of term, or years after?

Furthermore, measuring the effect of learning must depend on the objective(s) that we set for our teaching innovation. Stanislava had decided to assess participation (“students asking questions”), knowledge (“students being able to answer questions”), and engagement (“students taking notes”), but those criteria will vary depending on the expected outcomes of the innovation. It is generally a good reminder that we should not innovate for innovation’s sake, but that all attempts to improve the learning experience have to start from a concise definition of what is meant to change and why.

Stanislava’s project also reminds us that it is not just a question if we use active learning tools but how we apply and integrate them into our students’ learning. It seems like a plausible explanation that students in Brno and Tehran were overwhelmed with the task and would have needed more attempts to get used to switch from a more lecture-based system to actively engaging with the exercises. Another explanation could be that the exercises that we sometimes use are not achieving what they are meant to achieve, and they would need a different design altogether. Especially for colleagues unfamiliar with active learning there is a tendency to design active learning exercises that are too prescriptive and too narrow, as they do not allow students to engage in researching and asking their own questions.

Last but not least important, the reflections of Stanislava’s project even more tellingly
emphasise what we must not ignore when employing active learning pedagogy: students’ skills like active listening, processing information and taking notes must not be taken for granted and should also be actively – or even more concisely – encouraged and trained in an active learning environment.

Active learning pedagogy can help us a great deal to design tools to engage students, facilitate their learning, and train them as researchers. But applying active learning effectively asks for a different mindset, and its successful application looks easier than it is often made out to be in practice. Adding a few exercises in a traditional curriculum is often not enough to harness its full potential.

As with learning more generally, it can only work with practice, critical reflection, and sometimes, trial and error.