Educational Project on Overcoming Statistics anxiety (EPOS)

Integrating a learning trajectory of quantitative methods in non-methodological courses.

Problem:
Many political science students harbour a fear towards statistics. Nevertheless, acquiring quantitative skills is important for the functioning of social scientists in an increasingly data-drenched society. To address this problem, conventional approaches often tinkered with the number of methodological courses or the manner in which they were instructed. To develop mastery in a skill, repeated practice is paramount, as is the use of enticing examples. Such learning opportunities are, however, limited when methods courses are relatively isolated in the curriculum.

Proposed remedy:
We propose to integrate quantitative learning tasks within non-methodological courses throughout the curriculum. This enables both repeated exposure as well as a greater match with students’ sphere of interest. For six courses, Learning Tasks were created by a central project team based on insights from the scholarship on teaching and learning of quantitative methods. To enable a gradual approach, we developed a stepwise learning trajectory consisting of four steps:
1. from concept to variable
2. from variable to data
3. from data to descriptive statistics
4. from descriptive to analytic statistics

The project has been implemented since the academic year 2011-2012 and covers a wide variety of subjects across the different phases of the program.

Lessons learned:
Through focus groups with students as well as interviews with the responsible lecturers we learned the following lessons:

Students:
• (slightly) improved attitudes, longer retention of quantitative methods
• Larger number of quantitative master dissertations
• But! Challenge of heterogeneous student groups.

Lecturers:
• A central project team fosters greater participation and enables a coherent integration of research methods.
• Improved attitude and openness towards educational innovation
• But! Importance of internal coordination and communication

More empirical research is required for a better understanding of the benefits and challenges of the proposed innovation.

If you like to obtain more information please read:

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