OPENING ACADEMIC YEAR 2012

Opening Academic Year 2012 Erasmus Universiteit Rotterdam
Prof.dr. Henk Schmidt
Rector magnificus

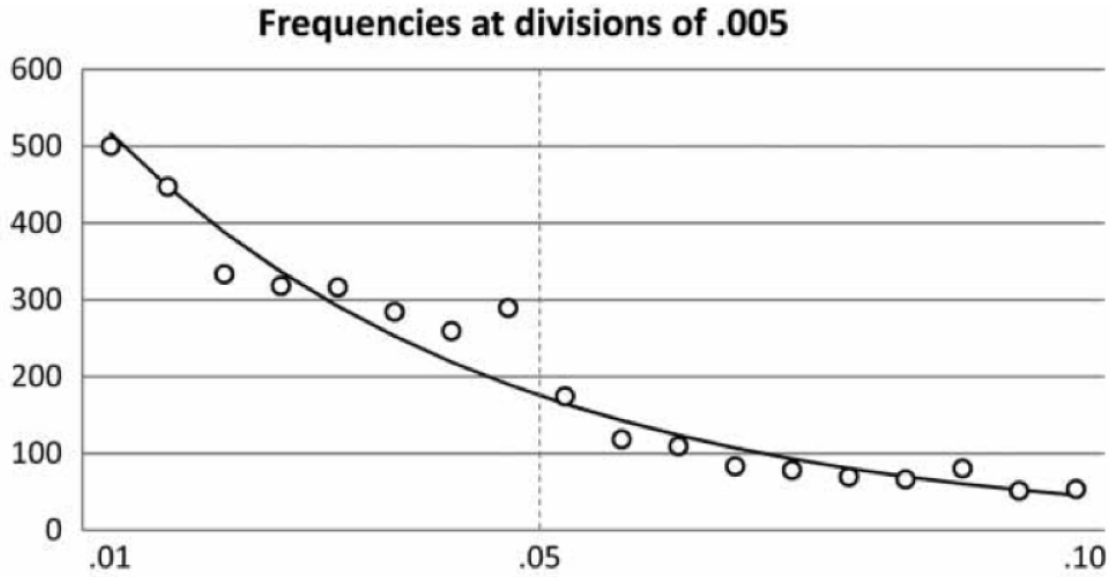
During the spring of this year, the university community was shaken by the findings of an inquiry carried out by the Scientific Integrity Committee. The committee was appointed by the Executive Board after suspicions arose that a professor at our university had committed scientific errors. The committee conducted an in-depth investigation into the statistical methods he had used. Irregularities were found in some articles, with findings that were highly unlikely in a statistical sense. The raw data on which the articles were based were no longer available for inspection by third parties. The professor indicated that he had selected data such as to make the sought-after effects statistically significant.

This is the second incident involving a violation of our institution's academic integrity in recent years. And that gives pause for thought. The task of scientists is, after all, to discover the truth. The reputation of science rests entirely on the credibility of its results. If scientists pass off self-fabricated lies as the truth, trust in science as a whole is at risk.

We could fool ourselves into believing that these are isolated incidents; the acts of solitary individuals who have somehow lost their way. But I am not convinced that the practices that have come to light are entirely exceptional. And I have been reinforced in that view by a recent article in the Quarterly Journal of Experimental Psychology. The authors, Masicampo and Lalande, collected all the p-values in 3600 articles published in two prestigious journals. It is important for academics that their findings are statistically significant, since otherwise journals will not publish them. Academics describe a result as statistically significant, in other words that an identified effect cannot be attributed to coincidence, if the p-value is less than 0.05. The researchers found that a disproportionate number of articles reported a p- value of just under 0.05. See the figure below[1].

This could imply that many researchers, by excluding participants from their experiments, "massage" their data until statistical significance is attained. This finding suggests that academic fraud may not be confined to isolated individuals, but seems to occur more or less routinely. Scientists have an extensive set of instruments to help them in this process: excluding participants who do not meet specific criteria, outlier analysis, imputation of missing data. While none of these methods are in

[1] Taken from: Masicampo, E. J. & Lalande, D. R. (2012). A peculiar prevalence of p values just below .05. The Quarterly Journal of Experimental Psychology. dx.doi.org/10.1080/17470218.2012.711335



themselves illegal, when they are used to make an effect that is not statistically significant appear significant, they form an explosive combination.
Accordingly, it is not sufficient to formulate guidelines about what is or is not permitted in scientific research. Or to take corrective measures when an individual perpetrator is discovered. It seems to me that preventing unethical behaviour is essential. In the coming months, therefore, the Executive Board intends to draw up a plan designed to prevent violations of academic integrity and submit it to the deans. The plan will contain a number of elements.

First, a Graduate Course will be developed, primarily for the Research Masters and PhD programmes, but which will also be open to young scientists, more senior academics and other employees. The course will provide an introduction to principles of academic integrity and ethics and the university's research values.

A second element is that we will take steps to ensure that all raw data produced through scientific research at this university are saved in a data repository to be managed by the university library. This will ensure that whenever in the future questions arise about the authenticity of research findings, the raw data will always be available for inspection. This measure is in line with the proposals of the Schuyt Committee established by the Royal Dutch Academy of Arts and Sciences (KNAW).

Finally, we intend to conduct regular evaluations of random samples taken from the data repository to check whether there are discrepancies between findings published and the actual data. This is a crucial element of our plan because ex post facto verification of the integrity of data will, in my view, serve greatly to prevent violations of academic integrity.

In drawing up these plans, the Executive Board makes grateful use of the work done by the Erasmus Research Institute of Management (ERIM), whose efforts form the point of departure for the EUR-wide plan I have just outlined.

In addition to developing the Graduate Course, the EUR is currently also refining its regulations governing academic integrity. Naturally, any changes will reflect developments and agreements made at national and international level.

And now for some good news

The Erasmus School of Economics launches a new Bachelor programme in Econometrics today. This is a course in English targeted at international students. Although the course is being given for the first time and has not been widely publicised, 47 students have enrolled (the original estimate was 20). This is a promising start, especially since our econometrics curriculum is unique in the Netherlands.

A second cause for celebration is that more students than ever will be starting today with what is, in the Dutch context, a quite revolutionary, small-group curriculum in Dutch law. The Erasmus School of Law has largely abandoned the practice of large-group lecturing and has switched to a system of active learning in groups of 10. Finding sufficient rooms for all 70 small groups on the campus presented quite a challenge, but we succeeded!

Finally, there is also quite interesting news from the Faculty of Social Sciences. You are of course aware of last year's experiment entitled "Nominal is normal." The results of the experiment are being published today, but before sharing them with you I would like to say a few words about the experiment.

As you know, students in the Netherlands take much time to complete their studies. Until recently, for example, our own students took an average of five years to complete a three-year Bachelor course. The government has adopted a variety of measures to encourage students to complete their studies sooner. You will be familiar with at least one of those measures: the fine for students who take too long to complete their studies. However, further measures are in the pipeline. One of the major factors behind these measures is the cost of education.

The universities have a different concern: it is that students continue to follow a course for too long, with little prospect of success, only to discover after two years that it is not the right course for them. We also often see that students postpone studying, something that is encouraged by the large number of repeats we allow them to sit. The figures from the Faculty of Social Sciences in the following table illustrate this.

	2010-2011: 60 EC after 1 year	2010-2011: 60 EC after 2 years
Public Administration	31%	58%
Sociology	12%	49%
Psychology	53%	69%

After one year, only 31% of the students of public administration have secured sufficient credits to pass the first year. In the second year, after additional repeats just over 25% more complete the year. The other students have dropped out in the course of the second year.

The idea behind “Nominal is Normal” is a simple one. What would happen if we insisted that students completed the first year in one go? And what would happen if we drastically reduced the number of exams that students could repeat, while at the same time not requiring them to re-sit every subject they failed provided their average grade was a full 6? The Faculty of Social Sciences took up the challenge of finding out. You have undoubtedly noticed that this experiment has been followed with great interest in the national press and at other higher education institutions.

These are the results of the faculty’s approach

	2010-2011: 60 EC after 1 year	2010-2011: 60 EC after 2 years	2011-2012: 60 EC after 1 year
Public Administration	31%	58%	62%
Sociology	12%	49%	55%
Psychology	53%	69%	75%

The results are encouraging. First, students are certainly capable of successfully completing their first year within the prescribed period. The percentages of students passing after one year are similar to the percentages of students who formerly took two years to complete the first year. Surprising is that more students passed their first year. Students are obviously capable of getting more out of their study if the bar is raised. And that is good news. It means that students start year 2 without still having to take subjects from year 1 and can therefore concentrate fully on the second year of their course. Almost all of these students will be capable of completing their Bachelor course in two or three years. The students benefit, but so does the university and society. Our congratulations to the faculty!

In the coming academic year almost all of the programmes at the Erasmus University will be adopting the principles of Nominal is Normal. We are confident that the results will be equally good in the other programmes. If that proves to be the case, Erasmus University will be making a unique contribution to solving the serious problem of the study completion rates among Dutch students. Naturally, we will keep you informed of developments.

It only remains for me to declare the 2012-2013 academic year open. It is certain to be an enthralling year. I wish our students much success with their studies. Go for it!