

voran die Hochschuldidaktik. Hier tendiert das Verhältnis oft eher zu Konkurrenz, als zu Kooperation (Pohlentz 2014). Im Sinne der Herstellung einer Balance zwischen den oben genannten Funktionen der Evaluation (Legitimation, Entwicklung, Kontrolle, Forschung) wäre es vermutlich sinnvoller, die Kräfte zu bündeln und die verschiedenen Anforderungen gemeinsam zu adressieren.

Literaturverzeichnis

- Braun, E. (2008): Das Berliner Evaluationsinstrument für selbsteingeschätzte studentische Kompetenzen – BevaKomp. Göttingen.
- Cioffi-Revilla, C. (2014): Introduction to Computational Social Science. Principles and Applications. London: Springer.
- ENQA (2005/2015): European Standards and Guidelines for Quality Assurance in the European Higher Education Area. URL: http://www.enqa.eu/wp-content/uploads/2015/11/ESG_2015.pdf (10.03.2018).
- Frank, A./Fröhlich, M./Lahm, S. (2011): Zwischenbewertung im Semester: Lehrveranstaltungen gemeinsam verändern. In: Zeitschrift für Hochschulentwicklung (ZFHE), 6 (3), S. 310-318.
- Harris-Huermann, S./Mitterauer, L./Pohlentz, P. (2014): Evaluation im Kontext der Hochschule. In: Böttcher, W./Kerlen, C./Maats, P./Schwab, O./Sheikh, S. (Hg.): Evaluation in Deutschland und Österreich. Stand und Entwicklungsperspektiven in den Arbeitsfeldern der DeGEval – Gesellschaft für Evaluation. Münster, S. 107-116.
- Hüther, O./Krücken, G. (2016): Hochschulen. Fragestellungen, Ergebnisse und Perspektiven der sozialwissenschaftlichen Hochschulforschung. Wiesbaden.
- Jorzik, B. (Hg.) (2013): Charta guter Lehre. Grundsätze und Leitlinien für eine bessere Lehrkultur. Essen: Stifterverband für die Deutsche Wissenschaft.
- Keuschnigg, M./Lovsjö, N./Hedström, P. (2017): Analytical Sociology and Computational Social Science. In: Journal for Computational Social Science, 1, pp. 3-14.
- Kromrey, H. (2003): Qualität und Evaluation im System Hochschule. In: Stockmann, R. (Hg.): Evaluationsforschung, 2. Auflage. Opladen, S. 233-258.
- Kromrey, H. (2005): Evaluation – Ein Überblick. In: Schöch, H. (Hg.): Was ist Qualität. Die Entzauberung eines Mythos, Schriftenreihe Wandel und Kontinuität in Organisationen, Band 6. Berlin, S. 31-85.

- Mittag, S./Bornmann, L./Daniel, H.-D. (2003): Evaluation von Lehre und Studium an Hochschulen. Handbuch zur Durchführung mehrstufiger Evaluationsverfahren. Münster.
- Pohlentz, P. (2009): Datenqualität als Schlüsselfrage der Qualitätssicherung von Lehre und Studium. Bielefeld.
- Pohlentz, P. (2014): Hochschuldidaktik und Qualitätsmanagement zwischen Kooperation und Konkurrenz. In: Neues Handbuch Hochschullehre 68, A1.9, S. 7-26.
- Pohlentz, P./Mauermeister, S. (2011): Dezentrale Verantwortung und Autonomie. Entwicklung von Qualitätsmanagement im Verfahren der Systemakkreditierung an der Universität Potsdam. In: Qualität in der Wissenschaft, 5 (2), S. 57-60.
- Qiu, L./Chan, S./Chan, D. (2018): Big data in social and psychological science: theoretical and methodological issues. In: Journal for Computational Social Science, 1, pp. 59-66.
- Rindermann, H. (2003): Lehrevaluation an Hochschulen: Schlussfolgerungen aus Forschung und Anwendung für Hochschulunterricht und seine Evaluation. In: Zeitschrift für Evaluation, 2, S. 233-256.
- Schimank, U. (2015): Identitätsbedrohungen und Identitätsbehauptung. Professoren an reformbewegten Universitäten. In: von Groddeck, V./Wilz, S. M. (Hg.): Formalität und Informalität in Organisationen. Wiesbaden, S. 277-296.
- Schmidt, U. (2010): Anmerkungen zum Stand der Qualitätssicherung im deutschen Hochschulwesen. In: Pohlentz, P./Oppermann, A. (Hg.): Lehre und Studium professionell evaluieren: Wie viel Wissenschaft braucht die Evaluation? Bielefeld, S. 17-32.
- Sullivan, G. (2011): Getting off the "Gold-Standard": Randomised Controlled Trials and Education Research. In: Journal of Graduate Medical Education, 3 (3), pp. 285-289.
- Weiss, C. (1998): Evaluation: Methods for studying Programs and Policies. Prentice Hall: New York.

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Susan Harris-Huermann



Susan Harris-Huermann

The role of peer review in science

From today's viewpoint it seems almost inconceivable that there once was a time where academia functioned without peer review processes, which are now so much part and parcel of the academic environment. Peer review is mainly taken for granted and we assume that it generally works well in estimating the worth of academic outputs of different kinds (publications, grant proposals etc.). However, the process itself is not free of criticism and much can still be done to improve review quality. In this paper I explore and question the purpose and function of peer review, engage with various problems that can occur in the process, and make suggestions for ways in which peer review might be improved. It is based on empirical research, participation in various peer review forms and observation of accreditation practice.

Science is "the intellectual and practical activity encompassing the systematic study of the structure and behaviour of the physical and natural world through observation and experiment" (Oxford English Dictionary). Science therefore requires us to work according to clearly defined parameters, which can be logically followed or emulated by others. Parameters need to be made clear. In this paper, which explores how science is judged by others in what is termed the peer review process, it will be argued that present practices which assess the quality of science in various contexts, remain flawed. Examples will be provided for how the process might work better according to revised principles. The paper will draw upon personal experiences gained organising and observing accreditation processes in addition to empirical work on higher education evaluators, and own work as publisher of an academic journal, author, and reviewer.

Peer review is "a process by which something proposed (as for research or publication) is evaluated by a group of experts in the appropriate field" (Mirriam Webster). Two implications lie concealed within this definition. Firstly, the focus is upon the objects of the process rather than on those undertaking the task. Secondly, the expertise of those undertaking the evaluative task is assumed as a given. However, it has been acknowledged that this is not free of problems (Smith 1988; Wager/Jefferson 2001; Collins/Evans 2007). Campanario's large examination of peer review (1998) concluded that there were low levels of reliability. Bohannon (2013) called the entire process of expert review into question by submitting a scientific paper full of blatant factual errors to a number of internationally famous journals to see if the paper even stood a chance of being published. The results proved an eye-opener as the paper was accepted by many large and well-known journals. Bohannon's findings (not the fake study results) have since been published in one of the world's most venerable and influential journals: Science magazine.

There are few areas of higher education in which peer review plays no (or hardly any) part, although the actual formalised process is relatively recent, coming into prominence in the second half of the twentieth century. Peer-reviewing is applied in a variety of contexts, predominantly in the following areas:

- publications, which are reviewed by experts who decide which research should be disseminated to a wider academic audience;
- proposals for new degree programmes, which are examined by peers and sometimes external experts, to determine if the respective programme meets already defined subject and legal standards;
- applications for third party funding, where funding bodies call upon subject experts to decide if projects are worthy of financial support.

One of the largest areas of academic activity – teaching – is notable for its absence from the above list. Well before the widespread introduction of audits and accreditation processes in which peers examine the quality of teaching and learning, Johnes & Rothschild (1975, p. 17) commented that it should be completely normal for colleagues to analyse each other's teaching, thereby helping one another to reflect upon the quality of teaching methods and even contents. In China, for example, it has long been standard practice for established university teachers to mentor early career lecturers and advise them on the quality of their teaching (Chi-kin Lee/Feng 2007). In the UK, too, it is becoming commonplace for teaching staff to have their teaching quality assessed by peer reviewers at the external Higher Education Academy (HEA)¹. However, in federally organised countries, it may be less easy to reach nationally-recognized stan-

¹ See HEA website <https://www.heacademy.ac.uk> for details of fellowships, training and events. Associate Fellowship is being increasingly sought by higher education employers as a prerequisite for appointment and/or promotion.

dards or external bodies that may undertake peer review of individual teaching quality.

Any form of review in higher education touches upon questions of personal freedom and liberty, namely the right and autonomy of the individual academic to determine the contents of his or her teaching or research on the one hand, and the manner in which that teaching or research is to be conducted on the other. The question of autonomy in academia is non-trivial and one which academics frequently cite when they suspect that inspection of any kind may lead to their activities being 'controlled' (cf. Hoecht 2006). However, as Dill (in R. Barnett 2005, p. 178) reminds us: "If the professoriate is to insist, and I believe we must, on the need for academic autonomy, then we must also offer convincing evidence to each other and to the larger public that our collegial processes for the maintenance of academic standards are vigorous and valid." Such evidence can be gathered from a number of sources, including for example qualitative observations from the lecture-theatre or seminar room, or from data from student evaluations and large student surveys. There is consensus that institutions of higher education should at least keep records of what they are doing because the majority are using public funding and society overall has a right to know how well money spent on higher education is doing (cf. Harris-Huermann 2011, p. 39).

1. Academic freedom and professorial responsibility

Academic freedom has long been at the heart of higher education debate, allowing professors to teach and research, more or less, without external control (Altbach 2001, p. 206). This is reflected in the following non-exhaustive online search for terms relating to peer review where it appears at the top:

Academic freedom	3.320.000
Peer review	2.900.000
Higher education peer review	2.720.000
Academic profession	2.690.000
Academic autonomy	2.460.000
Peer reviewers	762.000
Quality assurance peer review	406.000
Evaluators	258.000
Evaluators higher education	104.000
Professorial responsibility	45.400 ²

Towards the end of the last century, a number of seminal texts about the academic profession were produced, especially with regard to the role of disciplines and academic culture overall (Clark 1987; Altbach 1996; Becher/Trowler 2001). Although professors remain dedicated to the search for truth and the scientific method, the low number of hits concerning professorial responsibility suggests that while the notion of freedom is keenly upheld, the responsibility that this should entail may not always be given as much priority by postholders. This appears somewhat in tension with the rise of New Public Management with its need for transparency and accountability. The activities of academics have been increasingly thrust into the spotlight with quality assur-

ance systems scrutinising how academic goals are being achieved (Kloke 2013). This also includes how well peer review processes work.

However, there still remains a notable lack of empirical evidence about the specifics of how peers actually go about reviewing processes, both as individuals, or as members of a team. Bornmann (2008) analysed the entire peer review process from a sociology of science theory perspective, including the North American School, social constructivism and social systems theory. Marsh et al. (2008) explored questions of validity and reliability in peer review processes. Lamont (2010) interviewed professors to learn more about 'the curious world of academic judgment', as she put it. My own doctoral dissertation (Harris-Huermann 2011) examined the work of a large evaluation commission from a phenomenological constructivist perspective, unravelling the complexity of peer review processes including attitudes of evaluators from gender, age, status and country perspectives, how evaluation criteria are reached, which difficulties are experienced and how these are overcome.

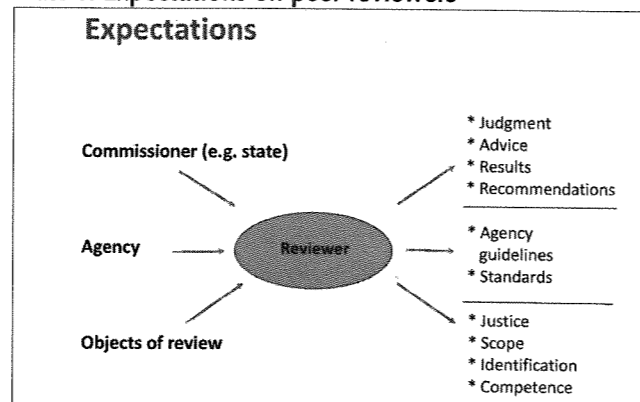
Peer reviewers are not just drawn from the ranks of the professoriate. Today, audits, accreditations and evaluations involve professors, students and representatives from the professions and industry. Whoever is chosen as a representative from any of these areas is assumed to have sufficient breadth of knowledge to enable a fair grasp of the quality of activities of those under review. Let us briefly revisit some of the underlying assumptions involved.

2. Expectations regarding peer review

2.1 Audits and evaluations

In many countries higher education is financed by the state, which therefore has a vested interest in the success of its higher education institutions as drivers for societal innovation through, for example, the creation of patents, the discovery of new fields of science and industry, or the start of spin-offs. When reviews (audits/evaluations/surveys) are commissioned by ministries, a number of factors are considered when peer review panels are put together, including individual reputations, specialist knowledge, gender equity, diversity, and non-partiality, e.g. peers should not have worked with those under review (Harris-Huermann 2011, pp. 97-99).

Illus. 1: Expectations on peer reviewers



² This Google Scholar online search was conducted on 16th February 2018.

The state appoints reviewers to provide results, usually in some form of executive summary, in which advice on future paths or courses of action are proposed, which may, or may not, subsequently be taken up. It assumes that the experts will use their judgment fairly, not merely superimposing previous experiences gained elsewhere, but according to the object under review. Agencies meanwhile expect reviewers to follow agency standards or guideline which will be distributed in advance of the review process. There are differences in the amount of time agencies provide reviewers to prepare in advance of the task, ranging from reading a few handouts only, to day-long workshops. This can depend on the particular review, of course, some of which will require more or less preparation. Finally, those under review have their own expectations, one of the main ones being that the reviewers will be capable of assessment according to the prevalent culture (Harris-Huermann 2011, p. 228.). This assumes empathy in review commissions and breadth of understanding, rather than focus on specific areas only. Furthermore, those under review wish to be treated fairly and competently.

If we expand the field of expectations to include the competences we might expect from reviewers overall, then we are looking at numerous additional qualities which may not have been specified, but are important within the peer review process. While being subject experts, they should ideally also be teaching experts, management experts and have preferably gained experience as reviewers themselves. They need to be excellent time managers in order to cut to the quick of perceived issues or problem zones, rather than prevaricating on non-significant areas. This can also include being able to read a considerable amount of literature in a short period of time (Harris-Huermann 2011, p. 249).

When working in review teams, they need to be diplomatic and conciliatory, yet able to speak up and defend their opinions when these differ from mainstream opinion within the commission, or when these are in opposition to views held within the object under review. It follows that they need to have skills in conflict management, especially in those cases where there is resistance to examination.

We have concentrated above on the subject experts who make up review commissions. However, students and externals are also being increasingly called upon as participants in university commissions that examine the existing quality of degree programmes, or who look at proposals for new degrees pre-implementation. Student representatives are frequently drawn from external pools of students studying for similar degree subjects elsewhere. Although they are of lower academic rank than professors, they should have enough presence to speak within the commission as equals rather than inferiors. When examining new degree programmes, for example, they should be aware of legislation and university structures.

Externals are usually drawn from business or industry who either employ graduates or who have themselves studied the subject in question. It is expected that they

bring in perspectives from the wider society and the world of employment in particular. Most, if not all, degree programmes should be of some relevance to society in general. However, some more generic programmes in the arts for example, do not educate for a particular form of employment, which is clearer in subjects such as medicine or teaching. So the choice of external can be problematic. It is also hoped that externals will have some knowledge of the institution and its structures. Let us now turn to peers involved in reviewing literature and grant applications.

2.2 Journals and third party funding

Academics submit papers to journals for a variety of reasons. Firstly, they wish to disseminate their work to a wider audience as part of their overall scientific responsibility. Secondly, being 'out there' means that they can engage with other scientists which can lead to new research, the development of new theories, or collaboration. Thirdly, having their work published in ranked journals can increase their academic kudos, an important factor for early career academics in particular. Academics in search of journals are faced with decisions about the rank of an intended publication, the visibility of their research (e.g. will it be listed in Web of Science or Scopus?) and the quality of the review process. Discerning academics aim to publish in well-known journals. Irrespective of journal, authors wish their work to be reviewed both fairly and thoroughly.

Publishers of journals therefore usually select reviewers who are assumed to have a good grasp of the overall subject area and who are believed to be able to judge whether the research is sound and whether it is worthy of dissemination to a wider academic audience. Many journals employ a double-blind review process – a gold standard, which is supposed to ensure that a) the reviewer does not know the person behind the research, as this might influence judgement, and b) that two independent opinions will complement each other and ideally come to a similar conclusion about the worth or merit of the work involved. Spicer & Roulet (2014) reveal, however, that one of the main reasons peer reviewers come to different conclusions is as a result of not being provided with sufficient evaluation criteria. Personal experience as a reviewer for various international journals and conferences comes to a similar conclusion that large differences in review processes do exist, which can lead to reviewers to being more or less clear about the actual process of what is expected of them. Results, even if these comprise a rejection, can lead a scientist to modify his/her research, which can later improve work overall. Where research is so cutting edge to the extent that other scientists may be unable to really grasp what is being proposed, negative review results can of course be depressing or even lead a scientist to stop working in that area, however, this is part of the journey that those involved in science need to accept. Not all ideas will fall on fallow ground.

In terms of judging the worth of research applications, it has been argued that the process is more like a lottery. Acceptance rates in many countries lie in the region of 20-30%. The process is therefore highly competitive (cf.

UK Research Councils³ or German DFG annual report 2016⁴). In contrast with acceptance to an academic journal in which money does not usually pass hands, because applications for third party funding usually involve requesting staff positions and material of various kinds, applicants expect the review process to be particularly professional. If academics expect all of the above, to what extent do reviewers meet these expectations? What is the reality of peer review in the above contexts?

3. Breaking some myths about peer review

If peer review is such an important aspect of academic practice, then we might expect all junior academics coming up through the ranks to be provided with a sound training in how to review well. This does not seem to be the case, though, as not all doctoral students are given opportunities to practice review techniques.

Although reviewers are supposed to remain objective, my own research into the attitudes of evaluators of higher education suggests that discipline cultures play a considerable part in influencing reviewers as to how they judge the worth of papers, funding applications or institutions (Harris-Huermann 2011, p. 248). Those who are well networked within their disciplines and situated within more mainstream areas of their discipline are more likely to be of influence in later decision-making. It can prove an insurmountable hurdle for reviewers to venture outside the safety of their usual areas of expertise, so they may prove less willing to put their weight behind supporting a more unusual or nuanced research proposal, for example. Indeed, it seems unlikely that reviewers will reflect on their entire disciplines in advance of reviewing. Good preparation by an agency, journal or funding body can go a long way to avoiding misinterpretation or bias.

In terms of the amount of literature which reviewers need to address in advance of audits and larger evaluations, we know that due to time constraints various strategies are adopted, ranging from skim-reading all documents, to randomly dipping into a few documents to 'get a feel', to diligently reading everything, which is probably actually expected of them. That said, reviewers seem nonetheless able, even with less preparation, to cut to the quick of an issue and ask appropriate questions. However, the lead may be taken more by one or two reviewers, rather than all equally. Gender and discipline background can also influence the roles of reviewers in commissions. With regard to representatives from the professions, these will tend to only be able to judge according to their own experiences, so although the commission may have someone from the professions included, the actual value of having them there seems limited and could even be called into question overall, although external perspectives are regarded as essential, especially in degree accreditation processes. Most reviewers are in general sensitive to their position as peer judges. They wish to provide support to their colleagues and usually suggest solutions to problems (Harris-Huermann 2011, p. 253).

4. Conclusion

Peer review in its present usually double-blind form did not exist at the start of the last century. In the past, research would be discussed collegially and scientists would scrutinise and comment on each other's work in full knowledge of who was behind the work in question. There are strong arguments that this can actually lead to better science if the feedback is honest and constructive. Personal experience of reviewing papers which have first gone through an open call, and are then reviewed independently by two reviewers who are known to the authors and who work in tandems, actually leads to very good results. Far from being put off by critical comments, the authors seem satisfied with the level of reviewer engagement and are not offended by comments raised. Furthermore, reviewing in a one-two procedure, in which one reviewer takes the lead and then forwards his/her comments to the other reviewer for further comment, displays a thorough and transparent academic engagement with contents.

At present the search for reviewers can seem somewhat haphazard, and in many cases academics never learn which criteria were behind their selection. This should be made apparent, so that reviewers are clear about their intended role. In terms of preparation time and the establishment of review criteria, it seems that more still needs to be done in this area to make processes clearer. Journals do not always provide well-structured evaluation criteria, which may lead to disparate results by different reviewers. If reviewers are given clear instructions, the quality of their work should increase. Large commissions in particular need to allow enough time for the reviewers to reflect on personally held paradigms or opinions, which may be of influence later. Agencies could be encouraged to probe this aspect in greater depth as part of their preparation work. Similarly, the academic profession could do more to provide more expert training in peer-reviewing, certainly at doctoral level. Post-doctoral researchers should be allowed to accompany review boards to learn about the inside workings of review teams, and given opportunities to reflect on the review process with those in the boards. It has already been mentioned that other countries use critical friends/mentors at the start of a junior academic career. This should surely be used more proactively elsewhere, in particular with regard to helping improve the quality of teaching.

I would like to conclude this paper with a personal anecdote. In my first week as a doctoral student, the director of our department set us a task. We were asked to critique an article he had written as a far younger academic. We soon concluded that his paper was not very good, which put us in a dilemma. Should we state the plain facts? If so, how? Or alternatively, should we try to pretend that his work was fabulous, as he had since gone on to obvious academic eminence? The best cri-

³ See <http://www.rcuk.ac.uk/research/efficiency/successrates/> for details for different subjects.

⁴ See http://www.dfg.de/dfg_profil/jahresbericht/index.html for funding details.

tiques ended up as those that honestly, and in appropriate language, described his methodological errors. This exercise also taught us a lesson about humility. Our professor knew that his paper was poor and he was not too proud to let us test ourselves on his own work, and because in this case we knew who the author was, we had to think hard about the tone of how to discuss his flaws. The exercise also taught us that nothing and no-one should be beyond critique.

Science is not perfect. A theory that might hold for centuries can later be found to be wrong after all. We can therefore only state with a degree of certainty that something is true. Peer reviewers thus need to remain self-critical and humble when they analyse the work of others. This is possibly the greatest lesson that peer reviewers of science should be taught.

Literature

- Altbach, P. (ed.) (1996): The International Academic Profession. Portraits of Fourteen Countries. Princeton: Carnegie Foundation. https://scholar.google.de/scholar?hl=de&as_sdt=0%2C5&q=academic+profession&btnG= (18.01.2018).
- Becher, T./Trowler, P. (2001): Academic Tribes and Territories. 2nd Ed. Maidenhead.
- Bohannon, J. (2013): Who's Afraid of Peer Review? In: Science, 342, (6154), pp. 60-65. DOI: 10.1126/science.342.6154.60 (01.03.2018).
- Bornmann, L. (2008): Scientific Peer Review: An Analysis of the Peer Review Process from the Perspective of Sociology of Science Theories. In: Human Architecture: Journal of the Sociology of Self-Knowledge: 6 (2). 2, Article 3. <https://scholarworks.umb.edu/humanarchitecture/vol6/iss2/3> (14.01.2018).
- Campanario, J. M. (1998): Peer review for Journals as it Stands Today – part 1. In: Science Communication, 19 (3), <https://doi.org/10.1177/1075547098019003002>, pp. 181-211 (14.02.2018).
- Chi-kin Lee, J./Feng, S. (2007): Mentoring support and the professional development of beginning teachers: a Chinese perspective. In: Mentoring & Tutoring: Partnership in Learning, 15 (3), pp. 243-262. <https://doi.org/10.1080/13611260701201760> (16.01.2018).
- Clark, B. (ed.) (1987): The Academic Profession: National, disciplinary, and institutional settings. Berkeley/Los Angeles/London: University of California Press.
- Collins, H./Evans, R. (2007): Rethinking Expertise. Chicago/London: University of Chicago Press.

- Dill, D. (2011): The Degradation of the Academic Ethic: Teaching, Research and the Renewal of Professional Self-Regulation. In: Barnett, R. (ed.): Reshaping the University. New Relationships between Research, Scholarship and Teaching. Maidenhead: SRHE & Open University Press, pp. 178.
- Harris-Huermann, S. (2011): Evaluating Evaluators. An Evaluation of Education in Germany. Wiesbaden.
- Hoecht, A. (2006): Quality Assurance in UK Higher Education: Issues of Trust, Control, Professional Autonomy and Accountability. In: Higher Education, 51 (4), pp. 541-563. <https://doi.org/10.1007/s10734-004-2533-2> (16.01.2018).
- Jefferson, T./Wager, E./Davidoff, F. (2002): Measuring the Quality of Editorial Peer Review. JAMA. 2002; 287 (21), pp. 2786-2790. doi: 10.1001/jama.287.21.2786 (16.01.2018).
- Johnes, G./Rothschild, R. (1975): Assessing Assessment. The Evaluation of Teaching and Research in UK Universities, RES newsletter Evaluating Teaching in Higher Education: a collection of conference papers. London: UTMU.
- Kloke, K. (2013): Qualitätsentwicklung an deutschen Hochschulen. Professionstheoretische Untersuchung eines neuen Tätigkeitsfeldes. Wiesbaden.
- Lamont, M. (2009): How Professors Think. Inside the Curious World of Academic Judgment. Cambridge/Mass./London: Harvard University Press.
- Marsh, H. W./Jayasinghe, U. W./Bond, N. W. (2008): Improving the peer-review process for grant applications: Reliability, validity, bias, and generalizability. In: American Psychologist, 63 (3), pp. 160-168. <http://dx.doi.org/10.1037/0003-066X.63.3.160> (21.01.2018).
- Mittag, S./Bornmann, L./Daniel, H.-D. (2003): Evaluation von Studium und Lehre an Hochschulen. Handbuch zur Durchführung mehrstufiger Evaluationsverfahren. Münster/New York/München/Berlin.
- Smith, R. (1988): Problems with peer review and alternatives. In: British Medical Journal, 296, pp. 774-777. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2545379/> (16.01.2018).
- Spicer, A./Roulet, T. (2014): Hate the peer-review process? Einstein did too. In: The Conversation, June 2. <http://theconversation.com/hate-the-peer-review-process-einstein-did-too-27405> (15.02.2018).
- Wager, E./Jefferson, T. (2001): The Shortcomings of Peer Review. In: Learned Publishing 14, pp. 257-263.

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Sandra Mittag, Rüdiger Mutz & Hans-Dieter Daniel Institutionelle Qualitätssicherung der Lehre auf dem Prüfstand: Eine Fallstudie an der ETH Zürich

Im Rahmen der vorliegenden Studie wurde das Qualitätssicherungssystem der ETH Zürich im Bereich Lehre einer umfassenden Meta-Evaluation unterzogen.

Das Qualitätssicherungssystem stützt sich auf die vier Instrumente Lehrveranstaltungsbeurteilung, Absolventenbefragung, Selbstevaluation und Peer Review.

Die Ergebnisse zeigen unter anderem, dass die ETH Zürich über etablierte Qualitätssicherungsinstrumente verfügt, die weitestgehend akzeptiert sind.

Allerdings bestehen bei allen vier Instrumenten Optimierungspotentiale.

ISBN 978-3-937026-74-9, Bielefeld 2012, 115 Seiten, 19.50 Euro zzgl. Versand

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