

좋은 심사시스템

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전문가심사

- 과학적 원고의 기본
- DB에서 선정된 1-3 명의 심사자 위촉
- 전문가심사 결과에 책임없음
- 심사 기한을 제시하고 준수
- 투고자는 전문가심사자를 모르는 경향
- 전문가심사자를 위한 안내 자료 제공
- 금전적 보상을 받지 않음

전문가심사자

- 학술지에 투고된 원고는 비공개 교신으로 저자의 개인 기밀에 속하는 자산이며, 원고 내용의 전부 또는 일부가 적절한 시기보다 먼저 공개되면 저자가 피해를 입는다.
- 그러므로 전문가 심사자는 원고정보가 노출되지 않도록 관리를 철저히 해야 하며, 논문이 출판되기 전에 원고에 대해 공개적으로 논의하거나 원고 내용을 도용 또는 전용해서는 안 된다.
- 전문가 심사자는 개인적인 목적으로 원고를 보관해서는 안 되며, 심사를 완료한 후에는 원고를 파기해야 한다.
- 전문가 심사자는 심사 의뢰를 받으면 수락 여부를 즉시 통보하고, 주어진 시한 내에 심사평을 제출하는 것이 바람직하다. 심사평은 건설적이고, 정직하고 정중해야 한다.
- 전문가 심사자는 원고와 관련한 이해관계를 공표해야 하며, 이해관계가 있을 경우 해당 원고의 심사를 반려해야 한다.

좋은 심사가 되려면

- 충분한 전문가심사자
- 확립된 심사가이드라인
- 심사평의 공유 및 편견방지 시스템
- 심사자 평가 및 훈련, 보상

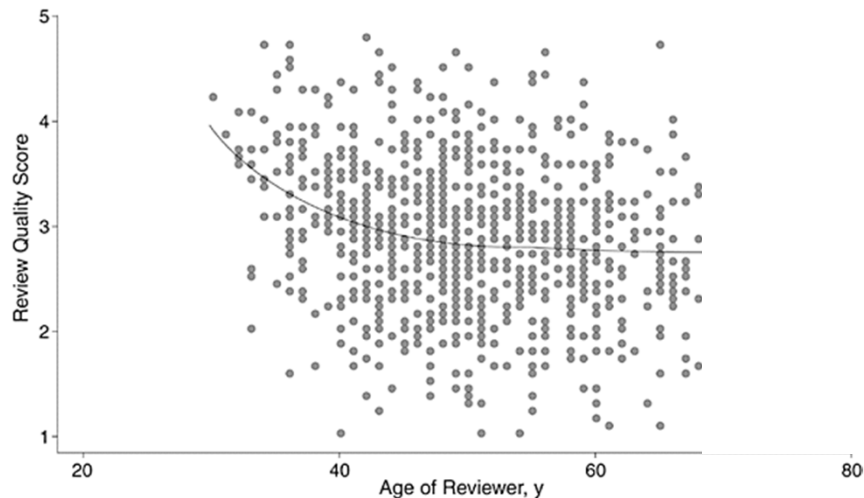
Current practice of peer review (n=3040)

– An international study by Mark Ware Consulting-

- Single-blind review (84%), double blinded (44%), open peer review (22%)
- Longer review times was a cause of dis-satisfaction (average 80 days)
- The most productive reviewers were overloaded. 3-4 journal, average 8/yr
- Active reviewers (>6/ yr) make up 44% of all reviewers, they are responsible for 79% of all review
- About 20% of invitations to review are declined.
- The average review takes 5 hours and is completed in 3-4 weeks
- Altruistic reasons for reviewing were preferred over self-interested ones.
- The average acceptance rate was 50%.
- Use of online submissions systems (76%)
- Access to journals literature(69%)

전문가 심사자

- 40세 이하
- 우수한 기관
- 통계와 역학 수련



Reviewing the Reviewers: Comparison of Review Quality and Reviewer Characteristics at the *American Journal of Roentgenology*

OBJECTIVE. The purpose of our study was to determine which manuscript reviewer characteristics are most strongly associated with reviewer performance as judged by editors of the *American Journal of Roentgenology (AJR)*.

MATERIALS AND METHODS. At the *AJR*, manuscript reviews are rated by the journal editors on a subjective scale from 1 (lowest) to 4, on the basis of the value, thoroughness, and punctuality of the critique. We obtained all scores for *AJR* reviewers and determined the average score for each reviewer. We also sent a questionnaire to 989 reviewers requesting specific information regarding the age, sex, radiology subspecialty, number of years serving as a reviewer, academic rank, and practice type of the reviewer. The demographic profiles were correlated with the average quality score for each reviewer. Statistical analysis included correlation analysis and analysis of variance modeling. Reviewer quality scores were also correlated with the scoring of individual reviews and ultimate disposition of 196 manuscripts sent to the *AJR* during the same period.

RESULTS. Responses to the questionnaire were obtained from 821 reviewers (83.0%), for whom quality scores were available for 714 (87.0%). Correlation analysis shows that the quality score of reviewers strongly correlated with younger age ($p = 0.001$). A statistically significant correlation between quality score and practice type was seen ($p = 0.008$), with reviewers from academic institutions receiving higher scores. No significant correlation was found between quality score and sex ($p = 0.72$), years of reviewing ($p = 0.26$), academic rank ($p = 0.10$), or the ultimate disposition of the manuscript ($p = 0.40$). The quality score of the reviewers showed no variation by subspecialty ($p = 0.99$).

CONCLUSION. The highest-rated *AJR* reviewers tended to be young and from academic institutions. The quality of peer review did not correlate with the sex, academic rank, or subspecialty of the reviewer.

Is there any training?



"Most journals provide online guidelines for reviewers but in my experience little other training is available. The skills are largely learned from colleagues and mentors in the reviewer's own department."

PROFESSOR MIKE CLEMENS

Biochemistry & Molecular Biology, University of Sussex



"When I started reviewing I had no formal training, but I did get invaluable guidance from senior staff. Now there are also training days and web courses which give advice on the structure and content of a review, and, importantly, the expectations of the editor."

DR DEIRDRE HOLLINGSWORTH

Epidemiologist, Imperial College London

Rules for reviewing anything

- Read the instructions to find out what you are being asked to do and why.
- If you receive no instructions and are not clear about what you are being invited to do, ask for more information or decline the request.
- Review the work not the person (unless you have been asked to do this), and don't try to be clever.
- Admit your limitations.
- Be as objective as possible and take account of (and declare) any
- conflicts of interests.

Being invited to review

- Is the manuscript within my field of expertise?
- Am I happy with the journal's peer review process?
- Do I have time to do this review?
- Can I meet the deadline?
- Do I have any conflicts of interest?

심사자의 자세

Do

- 교육적, 건설적일 것
- 기한 내에 심사하기
- 투고 결과와 내용을 보장
- 이해관계나 논란 피하기
- 자기 분야에 맞는 논문 수용
- 중복출판 표절 지적

Don't

- 모호함
 - 상처
 - 편견
 - 비평위주
-

심사자의 논문 판단 조건

- timely and relevant to a current topics
- well written, logical, and easy to comprehend
- well designed and appropriate methodology

BMJ recommended review style

- **Importance of the work to general readers** - does this work matter to clinicians, patients, teachers or policy makers? Is a general journal the right place for it?
- **Originality** – does this work add enough to what is already in the published literature? If so what does it add?
- **Validity** of the research
- **Presentation** of the study
- **Ethical issues**

원고의 구성

- 표지
- 초록
- 서론
- 방법
- 결과
- 고찰, 결론
- Acknowledgement
- 그림, 그래프, 표
- 참고문헌

표지(Title Page)

- 연락처, 책임저자, 연구비 표시
- Running title
- 전체를 알리는 선언문 형태
- 단어 수 제한(in 250 words or less)
- Keyword; poMedical Subject Heading (MeSH)

초록

- 초록은 원고와 독립적
- 초록 만으로 전체를 이해할 수 있도록
- 연구목표, 수치 오류를 확인
- 150-250 단어, 생략형은 한번은 풀어쓰기
- Introduction-method-results-conclusions

서론

- 연구 타당성을 제공
- 연구 목표를 설명
- 적절한 문헌을 간략하게 제시
- “Rules of Third”

방법

- 짧고 간결하게 처음에는 개관을 기술
- 서론 다음 또는 마지막, 4-6 쪽
- 간결하고 치밀한 기술, 잘 알려진 것은 인용 기술, 변형이 있으면 추가 기술
- Study design-study population-data collection-laboratory methods-statistical analysis
- Cf) in detail, arm

결과

- 가능하면 부제사용
- 줄거리를 만들 것
- 관찰을 논리적으로 기록
- 해석은 고찰에서
- 표, 그림에 결과를 반복하지 않음
- 단순, 명료하게 기술, "data not shown"

고찰

- 제기한 가설이 결과를 통해 옳은 지 분석하는 부분
- 발견된 사실에 대한 충분한 토론
- 교과서 나열을 피함
- “Rule of third”

그림, 그래프, 표

- 방법이나 결과 중 중요한 것을 표시
- 그림 설명은 본문을 읽지 않고도 이해가 되도록
- 고해상도
- 적절한 화살표를 표시
- 적절한 수의 표, 표와 본문이 중복되지 않도록

참고문헌

- 전체 원고의 질을 반영
- 정확한 인용
- 정확한 표기
- 불필요한 인용 피할 것(<40)

답변서 작성 전 고려할 것

- 먼저 원고에 대한 칭찬을 잊지 마라
- 큰 사안부터 지적
- Down to Earth법으로 각각 사안 지적
- 서론에 연구 중요성이 충분히 언급
- 지적을 정확하게 언급
- 부족한 점, 생략 부분 언급
- 심사의도나 결과를 알 수 없게 기술

전문가 심사의 문제점

- 각 학술지마다 상이함
- 시간지연
- 고비용
- 주관적
- 편견
- 비교육적
- 오류 파악이 어려움



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DANIEL CLERY Dan is a deputy news editor for Science.

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U.K. Parliament Panel Reviews Peer Review

2011-07-27 19:01 | [2 Comments](#)

Following an inquiry into peer review in scientific research, U.K. parliamentarians have concluded that, despite many criticisms and little evidence of its effectiveness, the traditional practice of having research articles evaluated by anonymous colleagues before publication is valued by the community and shouldn't be completely abandoned. But in their [report](#) released today, the House of Commons Science and Technology Committee says that innovative approaches to disseminating research, including preprint servers, open peer review, and online repositories, should be investigated as they could remove some of the reviewing burden on researchers.

The lawmakers looked at postpublication peer review approaches, such as having online commentary by other researchers. Such methods "represent an enormous opportunity for experimentation with new media and social networking tools," they said, although they caution that such tools should only be used "as a means of supplementing prepublication review."

The fundamental aim of peer review, the report says, is to ensure that research publications are scientifically sound and enable others to reproduce the work. Given that gold standard, the report recommends that unless there is a strong reason against it, all data should be fully disclosed and made publicly available at the time of publication, particularly if it is the outcome of publicly funded research. That recommendation, however, has prompted some concern. "In our experience, most misunderstandings from scientific research come from an absence of meaning and context [and] Preparing and scrutinising papers for publication is a vital part of

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FROM THE MAGAZINE

2 August 2013, Vol. 341, No. 6145



Discovery of a New Titi Monkey

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a few signs that should raise suspicions

NEWS FEATURE



THE PEER-REVIEW SCAM

When a handful of authors were caught reviewing their own papers, it exposed weaknesses in modern publishing systems. Editors are trying to plug the holes.

BY CAT FERGUSON, ADAM MARCUS AND IVAN ORANSKY

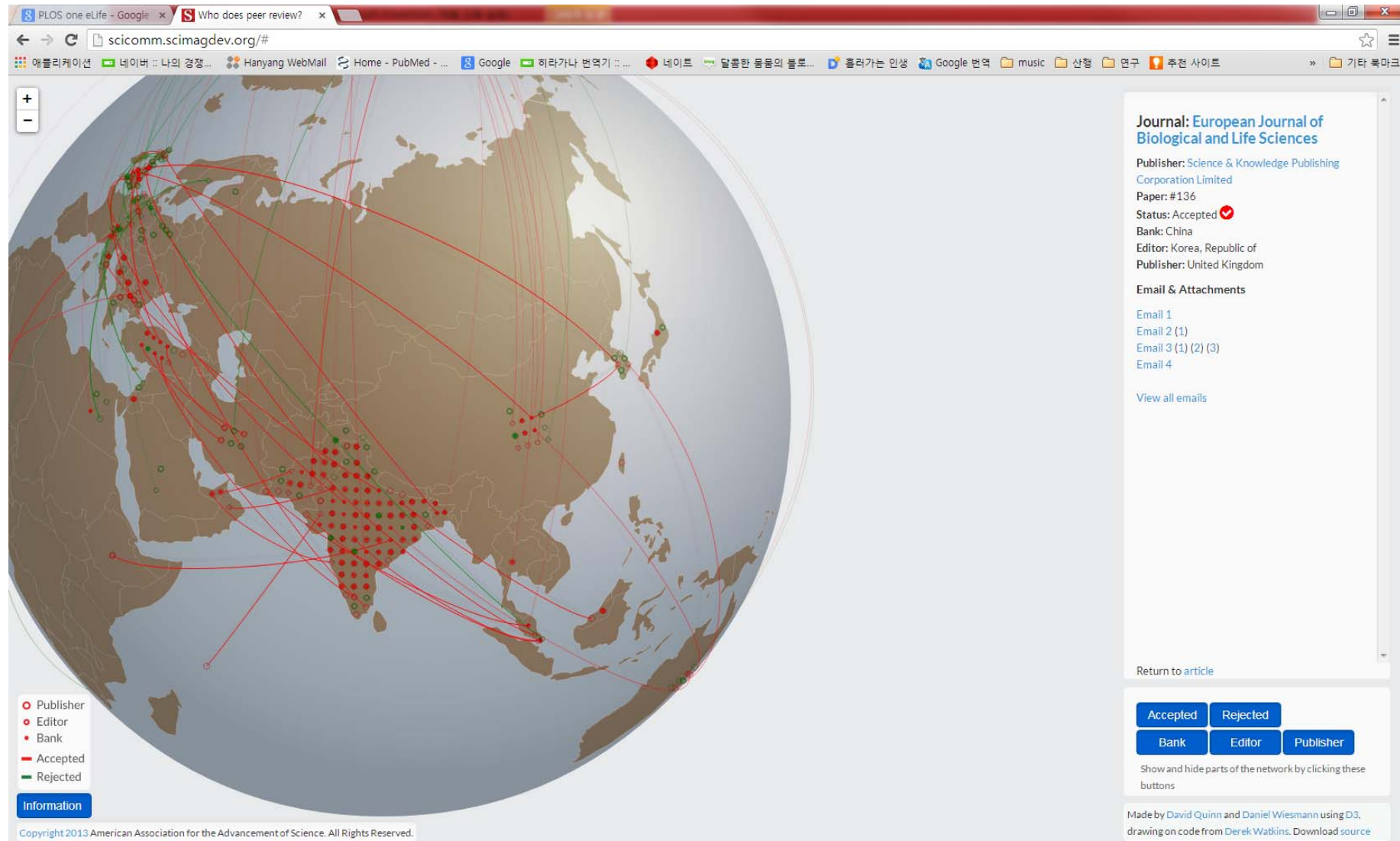
Most journal editors know how much effort it takes to persuade busy researchers to review a paper. That is why the editor of *The Journal of Enzyme Inhibition and Medicinal Chemistry* was puzzled by the reviews for manuscripts by one author — Hyung-In Moon, a medicinal-plant researcher then at Dongguk University in Gyeongju, South Korea.

The reviews themselves were not remarkable: mostly favourable, with some suggestions about

how to improve the papers. What was unusual was how quickly they were completed — often within 24 hours. The turnaround was a little too fast, and Claudiu Supuran, the journal's editor-in-chief, started to become suspicious.

In 2012, he confronted Moon, who readily admitted that the reviews had come in so quickly because he had written many of them himself. The deception had not been hard to set up. Supuran's journal and several others published by Informa Healthcare in London

<http://scicomm.scimagdev.org/#>



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PLOS



EMBO

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Abstract

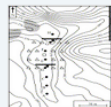
Highlights

Keywords

1. Introduction

2. Materials and methods

2.1. Experimental site



2.1.1. Upward-blowing wind machines

2.1.2. Conventional wind machine

2.1.3. Wind machine operation

2.2. Micrometeorological measurements

2.2.1. North-south transect of 10m towers and 10m remote tower

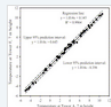
2.2.2. East-west transect of 1.1m sensors

2.2.3. Weather station and balloon inversion measurements

2.2.4. Smoke tracking of the air jet

2.3. Evaluation theory and data analysis

3. Results and discussion



3.1. Microclimate conditions during wind machine operation

Table 1

Table 2



Agricultural and Forest Meteorology

Volume 157, 15 May 2012, Pages 39–48



Vineyard frost protection with upward-blowing wind machines

Mark C. Battany

University of California Cooperative Extension, 2156 Sierra Way, Suite C, San Luis Obispo, CA 93401, USA

Abstract

Upward-blowing wind machines have been commercialized for use in frost protection but little quantitative information exists regarding how their operation alters site temperatures. In particular, their performance relative to conventional wind machines has been debated. To address this need, experiments were conducted on 12 spring frost nights in 2010 and 2011 in a commercial winegrape vineyard where either two upward-blowing wind machines or a single conventional wind machine were operated. Comprehensive measurements of air temperature changes caused by wind machine operation were evaluated on multiple transects at heights of 1.1, 4, 7 and 10 m. All 12 frost nights were characterized by low wind and clear sky conditions, with temperature inversion strengths commonly associated with beneficial wind machine use occurring on 9 of the 12 nights. The operation of the conventional wind machine produced consistently larger and more statistically significant increases in temperature, particularly at the 1.1 m vine level, as compared to the operation of the upward-blowing wind machines which produced very minor increases in temperature at the 1.1 m level under strong inversion conditions and either no change or decreases in temperature under weaker inversion conditions. Based on the summary relationships between temperature changes as a function of inversion strength, under conditions of an inversion gradient of $0.2\text{ }^{\circ}\text{C m}^{-1}$ the conventional wind machine would be expected to raise target area temperatures by $1.6\text{ }^{\circ}\text{C}$ at the vine level, while the upward-blowing wind machines would have no net effect under the same inversion conditions. Smoke tracking of the air flow from the upward-blowing wind machines indicated that the air jet reached 25 m height, and then tended to slowly settle back towards the ground. These results indicate relatively poor performance of this type of low-powered (6.3 kW) upward-blowing wind machine compared to a conventional wind machine under the conditions of this study.

Highlights

► The performance of upward-blowing wind machines for frost protection was tested. ► They did not produce useful increases in temperature at the vineyard test site. ► A conventional wind machine at the same site

<http://dx.doi.org/10.1016/j.agrformet.2012.01.009>

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전문가심사의 미래

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 - 전문가심사 기능의 분리; PLOS One
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