Focus on Germany: quantity and quality

Research Trends Editorial Board

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In the previous issue of Research Trends, we presented citation and article data on ten countries whose researchers produce a particularly high number of journal articles. In this issue, we have extended this analysis to eight additional countries including one of the oldest centers for journal literature, Germany. Ulrich’s Periodical Directory lists the Goettingische Gelehrte Anzeigen as the first German journal, founded in 1739.

On average, Germany’s publication output has been growing at a cumulative rate of 5% since 2002, as shown in figure 1. The abundance of quality German journals in areas such as Chemistry, Engineering, Life Sciences, Medicine and Physics was reason enough to analyze the recent patterns for publications in Germany.

![Figure 1 – Number of articles published by German researchers 2002-2006. Source: Scopus](image)

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<th>Subject Area</th>
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<th>Article #</th>
<th>1% Threshold</th>
<th>Article #</th>
<th>5% Threshold</th>
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Table 1 – A snapshot of the ten subject categories in Germany with the highest number of publications from 2002-2006. Medicine was the most prolific. Source: Scopus

The German language continues to be of major importance to many of these fields and to local research within German-speaking countries. Indeed, in 2006 Scopus identified almost 12,000 articles published in German, accounting for 11% of Germany’s total article output. It is interesting to note that this accounts for only 32% of the total article output in German, indicating German’s diversity as a research language throughout the world.

Continued on page 5
Prize winners
The influence of Germany on science was clear to see this year, with the announcement of two Nobel Prize-winning German researchers. Gerhard Ertl of the Fritz-Haber-Institut der Max-Planck-Gesellschaft, Berlin and Honorary Professor at Freie Universität Berlin and Technische Universität Berlin, won the Nobel Prize in Chemistry for his studies of chemical processes on solid surfaces. Peter Grünberg shared the Nobel Prize in Physics for the discovery of Giant Magnetoresistance, which resulted in a breakthrough in gigabyte hard disk drives.

In addition, Olaf Hohmeyer, University of Flensberg, is Vice Chair of the Working Group III of the Intergovernmental Panel on Climate Change. This Group was awarded the 2007 Nobel Peace Prize for its efforts to spread awareness of man-made climate change and lay the foundations for counteracting it.

To see the analysis for the eight countries mentioned at the start of this article (Argentina, Brazil, Chile, Columbia, Mexico, Poland, Turkey and Egypt), please click here.

To visit the first issue of Research Trends and see the original ten-country analysis, click here.

In an editorial in Current Science, P. Balaram observed that “rankings and ratings enter every sphere of human activity” (1) and even went so far as to compare institutional rankings to a “beauty contest”. With the publication of The THES-QS World University Rankings on November 9, the winners of the 2007 beauty contest were announced.

The Times Higher Education Supplement (THES), a London-based weekly newspaper that reports specifically on higher education issues, has published its World University Rankings annually since 2004. It works closely with Quacquarelli Symonds (QS), a leading independent network for higher education and related careers that acts as its research and data analysis arm.

Switch to Scopus
For the first time, the data used to compile the World University Rankings have come from Scopus. “As our own methodology developed and improved, we felt we needed a more comprehensive data source,” explains Ben Sowter, QS’ Head of Research. “We chose Scopus for several reasons: the quality of the data, which will provide enhanced transparency and clarity for the rankings; strong journal representation outside the United States; and more non-English content than other databases. We believe that the strong data found in Scopus, combined with other enhancements we’ve made to our methodology, will help stabilize rankings, making them more effective for tracking year-on-year performance. They will also result in a more robust and balanced measure of comparative international university quality.”

In addition to the switch to Scopus for citation data, the key enhancements to QS’ methodology are:

- Z-score aggregation of indicators to generate overall scores
- Peer reviewers prevented from promoting their own university
- Consistent usage of Full-time Equivalent (FTE) data for all personnel-related data

For more information on the effect these changes will have on the data and thus the rankings, please click here.

References: