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[TITLE]

Understanding academic trends in Japan through databases

[MAIN BODY]

Understanding academic trends in Japan and their characteristics helps us recognize our academic standing in relation to other countries. This understanding is also central to planning effective strategies for promoting academic activities. I'm currently doing research on quantitative analyses of academic conditions in Japan, using information like data from research funds acquired by researchers and numbers of published research reports.

Databases allow quantitative analyses of academic information

Although the importance of the research described above has been recognized for quite some time, there's been very little progress in this research field, the main reason being limited amounts of statistical data and manual data processing. This means data on a small number of prominent researchers—Nobel Prize winners, for example—get examined. This doesn't provide a picture of the overall academic world.

This problem was recently solved by the creation of databases. For example, data on research by university researchers is organized in a database called "Researchers' Directory." I was involved in creating this database, which lets us tally the number of researchers in each field. Other databases have been established for funds for scientific and technological research and for academic papers. These databases finally enable quantitative analysis of academic information.

## Multi-faceted analysis of academic conditions based on multiple data linking

In my research, I link information (factors) recorded in different databases and examine correlations and trends. For example, the “Researchers’ Directory” provides information on the major field of each researcher but doesn’t give any information on research funds. Nor does it show how many research papers they’ve written or the results of their research. So I extract that information from individual databases and link the different sets of information. The results provide information like who’s involved in what kind of research, how much funding is provided for that particular research, and what research papers are published by that researcher, all at the same time. This makes it easy to grasp the state and features of the academic community from various perspectives, which is one of the benefits of my research. I’ve recently added data on patents acquired by researchers as a new factor, and I’m promoting further analysis.

Since the data collected in my research is the most extensive of its kind in Japan, it lends itself to impartial judgment. The database should result in a clear picture of overall academic trends in Japan. I’m hoping this research will be used in university and research activity assessments to provide useful information for establishing policies that help create research environments promoting creative research.

(Interviewed and summarized by Osamu Nakamura)