

Threshold research support for university scientists

It is a well-recognized fact that universities lack research infrastructure as well as conducive ambience. The latter could, in good measure, be the consequence of the former. Unless this situation is remedied in a substantive way, there is no hope for improving and strengthening academic quality not only in the universities but overall in the country¹.

In spite of the prevailing conditions in the universities, we do believe that there is a good 30–40% of the faculty which is capable, and given a proper support, it could be activated. This is the target group we would like to focus on. In the present system of project research grants, this group remains unhooked. We should therefore have a scheme by which this latent resource could be tapped effectively. Many of the faculty, even active ones who do not require large equipment grant, are in need of continuing support in terms of fellowship and normal travel, etc. The present format requires a long process of writing proposal, expert evaluation, defending it and then waiting for the sanctions to materialize. For all this, the turn-around time is over a year and a half. Then the administrative hurdles on the awardee's end begin!

What we wish to propose is a quick response system that enables the otherwise inactive people to become active, and help and strengthen the active ones. The main concern is to help and facilitate a university faculty to carry on her/his research in specific areas, free of the hassle of submitting a big project in a cumbersome format, long wait for turn-around and the overall management of the grant, etc. This is essentially a threshold grant, which is readily available to an individual for her/his research. An academic who is doing good work should be helped through a 'no sweat' enabling grant, purely on the basis of her/his performance. Those who require costly equipment and large running expense should, however, go through the usual project-mode funding.

The present project mode of support has the following problems.

- (i) It is quite cumbersome to write a project in the given format, and then wait for a long time.
- (ii) The management of the project is non-trivial.

(iii) Even if the funding required is not heavy, it involves time-consuming and tedious procedure.

It is because of these problems that an average good university academic does not bother to get into this scheme.

In the proposed scheme, a university academic should make a simple application enumerating her/his area of research and her/his performance indices. This should be peer-reviewed and based on that the award is made for a period of three years. Six months before the completion of the term period, the awardee submits a brief report on her/his performance along with re/pre-prints of the papers published. It is then peer-reviewed in the given six months period and the decision of continuation with or without increase/decrease or otherwise, is conveyed to the awardee so that there is no lurch period at all.

Quantum-wise, there may be three levels (Rupees 50,000; 1,00,000 and 2,00,000 per annum) of support.

- (i) For young new faculty striving to continue research the budget could be limited to Rs 50,000. On the average, expected level of performance per year (ELP) is one paper in a journal of impact parameter > 1 .
- (ii) For the middle level faculty ELP could be ≥ 2 and with graduate and post-doctoral guidance, budget being extended to Rs 1,00,000 per annum.
- (iii) For top level expected ELP is 3 and to lead a good active group, budget limited to Rs 2,00,000 per annum.

The grant in all cases is meant to provide partial/full support to students/postdocs, for visitors and for attending conferences/meetings at home and abroad, for books/journals, equipment and other infrastructure. We wish to emphasize that the grant should be completely flexible and we should allow a part to be used for international travel. (There appears to be some mental block regarding international travel and it is high time that we come out of this mindset.)

If a lower-category person maintains an ELP of the higher category for two continuous terms, she/he becomes eligible for the higher category. On the other

hand, whenever a higher-category awardee fails to maintain the required ELP, she/he moves to the lower category. She/he could jump back only by performing above the higher category ELP. This is only a tentative guiding principle. The details need to be worked out.

There are more than half a dozen research funding agencies (DST/UGC/CSIR/DAE/ISRO/DBT, etc.) in the country. For the proposed scheme, it would be sensible to pool together grants from all the agencies and it could be managed and coordinated by a common authority. Each funding agency allocates 40% of its research support budget to TRSUS and it is pooled together. UGC is proposing to establish Research Councils for science and social science. These Councils could perhaps act as the common authority. The Councils will manage the running of the scheme by organizing peer-review and all other matters of management and execution of the scheme. Such a scheme is actually in function in South Africa, and it is managed by the National Research Foundation. We could adopt and learn from their experience.

We would guess a modest amount of rupees 30 crore per annum for sciences could support 3000 university scientists. The remaining 60% of the research outlay of the various agencies could be used for the usual project-mode funding. One cannot simultaneously have both the proposed scheme and the project-mode funding. It is hoped that this could result in a period of three years, 100% increase in research publications from the universities in journals with impact factor > 1 . The scheme could be reviewed after three years.

1. Dadhich, N., *Curr. Sci.*, 2003, **83**, 675; *Bull. Ind. Assoc. Phys. Teachers*, 20 July 2003.

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