

Assessing colleges: teaching or research

Assessment of colleges based on several criteria which include infrastructure, teaching, learning and evaluation besides other factors is mandatory according to UGC requirements. Research is another important component which is also emphasized upon during the assessment process. One of the yardsticks for the measure of success of an institution is based on the quality of research carried out and the number of publications by the faculty. While there is no denial of the fact that research is important, what many fail to understand is the problems faced by the faculty in local undergraduate (UG) colleges in doing research.

It is often said that the faculty do not apply for grants when a plethora of options is available for funding. The argument, however, is that in order to write a proposal, one has to be aware of and updated about the latest research happenings in the specific area of interest. While premier institutes have access to Scifinder and other search engines, which enable them to get an online version of the journals, the local colleges cannot afford to subscribe to these due to the exorbitant price attached to the subscription.

Another important factor which many fail to realize is the time available for a faculty in a UG college to do research. With most staff having about 20–22 h/week allocated to teaching and constraints in laboratory space, with laboratories working in three shifts from 7.00 a.m. to 5 p.m., carrying out research is a challenge. In addition to the teaching workload, most faculty members are involved in college administration and other related activities throughout the year, which is not considered as part of the workload. With the introduction of the credit system at the UG and postgraduate (PG) level, workload is bound to increase further, with continuous assessment and evaluation of nearly 100 first-year students taking most of the time. While the ideal student strength in a class should be around 40, in reality the actual number in colleges is more than double, with one teacher evaluating nearly 100 students. In the absence of teaching assistants (normally present in the Indian Institutes of Technology and other premier institutes offering credit-based programmes), teachers in colleges

are drained off their energy, leaving them little time for research. Moreover, the emphasis in an UG college is on teaching and learning. Majority of students are only interested in scoring well in the exams, and they are able to achieve this without much understanding of the concepts, thanks to the predictable pattern of the exam papers. The teachers role in an UG college thus boils down to preparing the students for these predictable exams, by training them to answer the commonly asked questions related to the syllabus. To do this, one has to be a good communicator, rather than a good researcher.

The quality of students opting for the B Sc and M Sc programmes is a far cry from the kind of students one would expect to opt for research. Most of them are in the programme out of compulsion rather than by choice. However, there are exceptions to the rule; there are occasions when a student joins the B Sc programme purely out of interest. Such students are a rarity and always counted as a blessing.

Does it then imply that a UG faculty who is not actively into research cannot contribute to the growth of scientific discovery? This is not true. In my opinion, if a teacher is able to motivate students into taking up a career in research, then he/she is making a significant contribution to the research scenario in the country, albeit indirectly. Inculcating a passion for research in young minds and motivating them to appear for the various exams leading to admission to a Ph D programme is equally important. Government has instituted several fellowships like KVPY, INSPIRE and many institutes like the Jawaharlal Nehru Centre for Advanced Scientific Research, Homi Bhabha Centre for Science Education and scientific bodies like the Indian Academy of Sciences, UGC Networking Centres, etc. are offering summer fellowships to inculcate a research aptitude among UG/PG students. However, not many students are aware of these schemes. Bringing about an awareness and motivating them to apply to such schemes is equally important. Exposing UG students to current trends in research and the interdisciplinary nature of science, by organizing workshops, seminars and making them interact with scientists

and academicians from premier institutions would also help in motivating the students. With the average score of students at the entry level for a B Sc programme being around 50%, it is a mammoth task to encourage them to pursue a career in research. First, they have to be convinced that there are several options available after doing a B Sc. More than the students, often it is their parents and family members and society at large who need to be counselled. The next step involves informing the students about research and trying to develop a research attitude in them.

While the task is difficult, it is not impossible. Success stories are aplenty and it makes a teacher feel proud to see his/her students doing well in the field of research in India and abroad. In spite of all the odds, there are examples of simple projects done in colleges being published in peer-reviewed journals. While the number may be less, nevertheless, they need to be appreciated and taken note of.

Another factor responsible for the declining interest in research is the lack of academi–industry interface. However, many industries have realized this and over time, they are beginning to make themselves a part of the academic field, in small but significant ways.

During the course of more than two decades of teaching experience, I have seen students who performed below average in the first year, going ahead to do quality research in premier national and international institutes. Many others have become faculty members in established academic institutes in India and abroad and are guiding students for research. Thus while I may not have contributed to good research or have several citations to my credit, when I see my students actively involved in high-quality research with acclaimed publications, I am happy that I have done my bit for the development of research in our country.

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