

Change to go toward the future

There is no doubt that the Brazilian graduate programs are one of the high points of higher education in Brazil. There is nothing similar in the other Latin American countries and even among the so-called BRICs (Brazil, Russia, India and China) the Brazilian graduate programs stand out due to their quality and vigor. For this reason, Brazil awards more than ten thousand doctorate degrees annually and occupies 13th place in the ranking of countries with the largest indexed scientific production. In this case, it is possible to affirm that the government is doing its part and that it is the responsibility of the scientific community to evaluate and to improve the graduate programs in order to attain the level of the developed nations. However, the evaluations must be made with the objective of bettering the quality of the graduate programs and not with the objective of penalizing those programs that do not have satisfactory performances. This does not signify that the programs with more than three unsatisfactory evaluations should not be extinguished.

Within the Exact Sciences, the graduate programs in Chemistry are those that have grown the most in the last 15 years. This growth is probably due in large part to the Program of Support for Scientific and Technological Development (PADCT), created in 1984 and which lasted until the middle of the '90s, and to the actions promoted by the Brazilian Chemical Society (SBQ). For example, PADCT defined priority areas and strategies related to the development of Brazil and, to achieve this, supported undergraduate and graduate education, libraries and emerging research groups.

The SBQ correctly decided, different from other scientific associations, to create and strengthen its scientific journals and to maintain its complete independence, a characteristic since its founding in 1977, of financing agencies and the government. Of course, independence does not mean indifference or lack of collaboration; whenever asked the SBQ has promptly given its contributions. The creation of the forums on undergraduate and graduate education is a concrete example of how the Directorate and Council of the SBQ are disposed to give their contributions to better the teaching of Chemistry at these levels.

At the IXth Workshop on Graduate Studies in Chemistry, that occurred in Belo Horizonte on the 26th and 27th of October, a paper was presented based on a study by the American Chemical Society (ACS) that analyzed the positions occupied by the persons with recent doctorate degrees in the United States. This type of evaluation could

be a good indicator to be used by the Brazilian graduate system, since the Coordination for Chemistry of CAPES has correctly focused on the evaluation of the students. Why not, then, evaluate the performance of recent doctorates in, among other items, public examinations for university teaching positions? It is general knowledge, today, that, in many of these examinations of candidates, the positions are not filled because the majority and, in some cases, all of the candidates are reprovved.

There are two possible explanations: the examinations were poorly applied or the candidates were poorly prepared. If this indicator were to be adopted and carefully evaluated for the graduate programs in chemistry, in addition to the present evaluations of master's and doctorate degrees awarded and the number of articles published in high quality scientific journals, there would be a greater preoccupation on the part of the professors and of the institutions with the preparation of their students. Produce science, yes, but with an understanding of what is being done!

Another activity that could have a significant impact on Higher Education Institutions would be to convince the Education Minister that the public examinations for teachers at the Federal Universities should be carried out nationally or regionally. If, on one hand, those approved in the top places would have the right to choose the university at which they would teach, on the other hand, the institutions should have a well elaborated strategy to receive and to support these teachers, who would develop their research on themes of interest to the institution.

If this procedure were adopted, the Ministry of Education (MEC) would be emphasizing quality and, at the same time, evaluating the recently formed doctorates. Whatever evaluation system is used should not be allowed to stagnate or to fall into sameness. The university as a "place of learning" must leave the side of conservatism and experiment with new actions. In light of this challenge, why not start with national examinations for the Chemistry Institutes, since, to speak of Departments is to live in the past and to maintain an obsolete system? This needs courage and determination to change, to continue to advance in the direction of the future!

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