

You're Just One Minute Away From Automated Labwashing



Attach the Labwasher's quick disconnect coupling, with universal adapter, to any water tap. Plug in three-wire, eight foot cord to any nearby 115 volt, 60-cycle A.C. outlet. That's it! One plug. One connection. One minute. And your lab is equipped for automated labwashing.

The CRC Labwasher handles most lab glassware. Efficiently. Conveniently. And inexpensively—because it soon pays for itself in man-hours saved. Fifteen different stainless steel racks are available for volume washing.

Request Bulletin No. S 721 for more information.



Find out more. Write to:

**THE
CHEMICAL
RUBBER
CO.**

Department S721 2310 Superior Ave.
Cleveland, Ohio 44114

8) The entire spirit of the contracts is now so ambiguous that people have a terrible time determining whether what they are doing is compatible with them. This is quite independent of effort or time reporting, and even though one may have found it convenient for 10 years to operate in this ambiguity, things have progressed to a point where it cannot be tolerated anymore.

Various people are struck in different ways by the above points, and give them different emphases, but I believe they are all worth mentioning. Furthermore, they involve much more than the immediate problem of effort and time reports. They involve the nature and extent of government subsidies to universities in the foreseeable future. There is no doubt that if the universities of this country are to continue at the same level of achievement and intellectual productivity as in the past 10 years, then there will have to be a large financial contribution to their budgets from tax money. It does *not* follow, however, that this should imply a corresponding loss of intellectual and political freedom, although we may well be forced to reconsider the very basic structure of the present means of channeling tax money into the universities. This, of course, can be done by dialogue, and I don't see anyone needing to accuse anyone else of treason or sinister designs for suggesting the need for such considerations.

The need does exist, and it is urgent. The situation has evolved to the point where professors who refuse to sign a meaningless document, which is nothing but double-talk, are pressured by their administrations for financial reasons. As Palais wrote to the coordinator of sponsored research at Brandeis: "We are greatly disturbed by the fact that the Universities have allowed themselves to be maneuvered into a position where their professors can be blackmailed into an action contrary to their institutions' traditions and to their own best interests. We now feel that we must fill out these effort reports, retroactively and for the immediate future, in order to protect Brandeis from the possibility of having to pay back large sums which it has received from the government and already disbursed or committed. We wish to make it clear that this is done under strong protest, and as a temporary measure to protect the University's financial interests. It does not imply on our part an acquiescence to the

principle of effort reporting." At Berkeley, the chairman of the department of mathematics, Leon Henkin, refused to fill out the forms, and stated: "When the University or supporting agencies require preposterous forms to be completed, it inevitably weakens the respect with which their serious policies are treated."

Various math departments are seriously considering substantial curtailments of their activities because of the obnoxious accounting practices now imposed. The problem obviously transcends the present crisis provoked by the revision of A-21, dated March 1965. But if the only choice given to us is to curtail, or lose past freedoms, then let us curtail.

SERGE LANG

*Department of Mathematics,
Columbia University,
New York 10027*

The Genesis of Creativity

Students are the best judges of an instructor's ability to present the subject matter in a clear and interesting manner as Denenberg has suggested (23 Dec., p. 1504). But is lucidity of presentation a sufficient or even a necessary condition for the development of creativity?

The primary function of a scientist is to solve problems, not merely to recognize relationships that have been elucidated by others. Too frequently students bemoan the effort they must exert in a given course and in the process they postulate an inverse proportionality between the pedagogical skill of their instructor and the magnitude of the effort they must expend to learn a subject. Actually, it is by this very expenditure of effort that students develop the ability to solve problems.

The ideal teacher is one who can stimulate the student to make this effort. He will know when to leave certain concepts unemphasized and then assign problems whose solution requires a comprehension of these concepts.

The question remains, however, whether his contribution to the intellectual development of his students will be appreciated, or even recognized by them. "The undisturbed oyster produces no pearl," but is the oyster aware of this?

GEORGE J. BEICHL

*Department of Chemistry,
Saint Joseph's College,
Philadelphia 31, Pennsylvania*