

Letters to the Editor

Comptroller General Reports on NSF Funding

An October 26, 1976, report to the Congress of the United States prepared by the Comptroller General's Office (HRD-76-134), describes "the evaluation, distribution, and monitoring of science education materials" developed with support from the National Science Foundation. This report is rather critical of the Foundation's management procedures for ten curriculum projects studied by the Government Accounting Office (GAO) as well as the evaluation schemes for these projects.

Although the Foundation is initiating and proposing some drastic changes with their role in science education projects, educators will need to carefully assess some of the problems with pre-college educational materials presently under development with Foundation support. Findings by the Comptroller General's Office indicated "Most material evaluations did not sufficiently demonstrate that students will acquire the desired educational outcomes."

William V. Mayer wrote about this matter in an article titled "The 9.2 Million Dollar Silence" (ABT 37:7). A rebuttal letter, "N.S.F. Funding: Who is Accountable?" written by me appeared three months later in the same journal (ABT, 38:2). Mayer commented the thrust of his "October article was to have those interested make their needs known to their appropriate representative concerning the values of past NSF-sponsored" activities. In view of the recent published findings in the GAO report (HRD-76-134) about the evaluation procedures used by both the Foundation and the developers

of the science education materials, a question is raised as to just how "valuable" were some of the past Foundation supported activities particularly those involving curriculum development? The GAO report noted developers "usually only obtained opinions of the materials and did not conduct formal objective testing to demonstrate the materials worthiness in improving science education." (See pp. 10-14, HRD-76-143). Further, that the final version of some of the materials distributed lacked for an evaluation or the reports were "not always published and test results did not support claims made in promotional literature." (See pp. 11-17, HRD-76-134).

I urge interested educators to read the Comptroller General's report (HRD-76-134) before planning to support or implement some of the current educational projects still in development with the aid of NSF funds. Educators need to support educational reforms and programs that are sound and based on valid reasons—not just change for the sake of change.

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Creativity in Science Courses

I hope your column will act as a sounding board, a place to express my feelings as a parent and my attitude as a teacher. Having completed my Masters Degree in education at the University of Illinois in 1972 and having taught biology and chemistry since that time, I submit the following composition to you.

At the game on Friday, we saw an example of a cell at work. It was an animal cell.

First, some guys from the other team came over to our side with a sign that said our team was no good. They formed the nucleus. Their friends made up the other parts of the cell. When guys from our team ran down to fight them the cell used active transport to get them through the cell membrane (pulled them into the cell). The mitochondria started giving their energy to the new parts in the cell (in the form of punches). There was an endoplasmic reticulum who caught the materials as they were transported through the cell membrane and moved them through the cytoplasm—pushing them around the cell.

Then some policemen arrived and tried to get through the cell membrane which being differentially permeable, wouldn't let them enter the cell. But a mistake was made. Thinking it was another fighter the cell actively transported one of them into the cell. He cut the cell and the nucleus in half, and the cell slowly died.

My daughter wrote this for an extra credit assignment in Biology (BSCS yellow text). It was labeled a fantasy, unscientific to say the least and unacceptable for credit. As a teacher, I implore teachers not to "put down" original efforts on the part of students. As a parent, I implore teachers to be more humane. In the words of the educators at the University of Illinois, "don't stifle creativity in your science courses".

Dear editor, would you print this short article to reinforce her efforts and to remind teachers of their broad obligations to students? Does biology need to be so rigid? Do teachers need to be so frigid? Is science less academic if we enjoy it a little?

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