

To the State College School Board:

We are gravely concerned with the “Investigations” mathematics program currently being taught in the State College School district. This program is based on the highly controversial idea that one bypass basic techniques when teaching mathematics, that the students will themselves discover mathematical truth, while the teacher only plays the role of a facilitator. As mathematicians and educators, we know that this approach is bound to fail. This has been confirmed by a number of studies, and by numerous concerned parents’ petitions across the nation to remove the TERC program (Investigations Math) from the curriculum. The state of California dropped this program 10 years ago as a result of the students’ catastrophic performance and the resulting public outcry.

Imagine that you want your child to learn downhill skiing. Would you let her “discover” the techniques on her own? The result would be clumsy skiing and, perhaps, broken limbs. The same applies to other activities, such as playing the piano – or driving, for that matter. So, why not to math?! If rigorous teaching is replaced by “re-discovering” mathematics, the result is easily predicted: the students will be left behind. And they will have serious difficulty in college, not only in calculus, but also in science courses, such as physics or chemistry which require mastery of basic math skills.

Our concern as parents and mathematicians is coupled with our concern as citizens. If this country wants to remain competitive in the 21st century, elementary and high school mathematics education must improve dramatically and approach the level of such countries as South Korea or Finland, whose students perform much better.

We urge the School District to abandon the Investigations program and to return to a more reasonable mathematics program.

We write as concerned citizens and the expressed opinions do not necessarily reflect a position of the Pennsylvania State University and no official endorsement by the Pennsylvania State University of the viewpoints expressed should be inferred.

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