Response to: Peg Tyre's Sunday NY Times Week in Review 11/28/10 article: No more A's for good behavior see: http://www.nytimes.com/2010/11/28/weekinreview/28tyre.html

## Are the A's we give worthy of our students? <br> or <br> How grades can kill the golden goose of education

## by Paul Zachos

In her 28 November, NY Times Week in Review article, Peg Tyre does a good job, of illustrating the irrationality inherent in how students are graded in schools. But will the "standards based grading" method described in the article be any more rational or effective?

Grading for compliance is a common practice. It is actually a method of social management and so has little to do with education proper, that is, with helping students to attain goals for learning. The article "No more A's for good behavior" describes an alternative method called "standards based grading" in which grades are based exclusively on test scores. This method is described as "the single and most powerful measurement by which educational outcomes are being judged"

However if we think carefully about standards based grading we will find that there is nothing particularly powerful about the method as presented in the article. Rather it is an utterly simple and conventional idea. It says let's give grades strictly on the basis of how students perform on tests. Then the highest grades will go to those students with the best performance on our tests and vice
versa for the low performers. Is there really something new here?

The success of this method depends on the worthiness of the tests as measures of the attainment of learning goals (the "standards" referred to in the article). But all who work in the field of education know that most tests are quite far from measuring what we consider most valuable in the way of subject matter and skills. Moreover these tests say nothing about qualities that we know should be developed in school such as initiative, persistence, creativity, attention, etc. This is because most tests focus on superficial aspects of learning which are the easiest, least expensive, least time consuming qualities to measure. What happens then is that we organize our educational system around holding students, and then teachers, accountable to instruments that are not themselves accountable to our highest expectations and values.

But 'standards based grading' will fail to produce desired change for other reasons as well. We should not confuse what students know with what they have learned in class. In typical public school education settings, not all students come into a class with the same level of preparation and attainment. Let's consider a class, say a math, history or science class, in which 10 percent of the students come in so well prepared that they could do well on the exams whether they attended class, did homework or not. Let's look at the $10 \%$ who are the bottom of that class regarding preparation and previous attainment. Everyone who works in the field of education knows the story; they can tell you the ending. If there is strict 'standards based grading' as described in the article The top 10 percent will get A's and B's, and the bottom 10\%, no matter how hard they work, no matter how much they progress, may not even succeed in getting B's within the time frame of the course with out massive remedial assistance. The article on two
occasions refers to the 'smartest' students with the complaint that the highest grades are not going to the 'smartest' students. If our goal is to give high grades to the 'smartest' students we might simply give grades based on IQ and forego the expensive educational process entirely.

Peg Tyre brings us to the crux of the matter however when she describes how "only 24 percent of high school seniors knew enough in four subjects - math, reading, science and English - to do college-level work." Now we are addressing a truly educational problem and not just a social management issue. But please note that grades based on test performance do not provide such information. They do not tell which students are prepared for college or even which ones are prepared for the next course in high school. This is because conventional tests bunch together information about performance on distinctly different learning goals, thereby obscuring how individual students performed on the specific items that would tell how well they did regarding the 'standards'.

Hence, remarkably, grading based on conventional tests is not useful as an educational tool. Grades cannot be used to identify what needs to be taught or how to teach it. They can only be used to grant and deny access to social approval and privilege - to decide who passes the course, who advances to the next grade, who is allowed to participate in some event or activity (e.g. play on the football team). Some may argue that grades based on tests have motivational value. Perhaps they do in the case where a student who wants to join the football team is intellectually prepared for the coursework or has the resources to obtain such preparation. But in general the notion of grades as being motivating is bankrupt because of the uneven effects of grades based on tests. Some children are motivated by high grades; others become lax. Some are motivated to improve their performance when they receive low grades, others become defeated and
give up. Students motivated by the desire to learn can be distracted from their primary motivation by grading; others rebel against grades and become belligerent. Thus scores on tests are not a positive incentive for all students and in fact are a neutral or negative incentive for many. To be used effectively as a motivator, scores from tests would have to be used intentionally and carefully, student by student with a clear knowledge of what effect the grade would have on each student; this is clearly not done except in rare cases, nor is this practical as a general approach.

There is one way that grading could be a motivational tool and that is if it could be tied to worthy accomplishment, to the completion of a worthy task at a specified level of quality. This method is exemplified in the accomplishment based grading employed by Robert Pavlica for his Authentic High School Science Research Course which began two decades ago in Byrum Hills New York and has since been replicated throughout New York State and parts of New England supported by the National Science Foundation. Pavlica was able to develop in students (often students who varied dramatically in initial competence and preparation) the abilities needed to review scientific literature, make scientific presentations, attain mastery of scientific subject matter, and ultimately work with a scientist mentor to design and carry out an original piece of scientific research and produce a paper of publishable quality. Grades in his course were based exclusively on whether students accomplished the tasks associated with competent scientific research, not on knowledge and skills attained. Indeed by the end of the first year, the knowledge attained by students in their specific scientific disciplines often exceeded that of any teacher in the school. The many Westinghouse and Intel awards received by Pavlica's students, and students of teachers who worked under his tutelage, are evidence of the effectiveness of his
assessment model.

Not all students will be interested in doing scientific research, but accomplishment based grading principles can be extended to any course of study. We can design worthy tasks in any human domain that can help students develop initiative, persistence, and practical problem solving abilities as well as knowledge and skills. We can grade students on how well they apply themselves to meeting the standards of quality of these tasks. The tasks can be producing movies, designing and realizing items of apparel, identifying the causes of a political or economic problem. The grade received depends on whether students meet the criteria of quality associated with the task. The tasks can be designed in a way that all students in the class have the possibility of meeting the criteria for quality performance. Students are thus all on an even playing field and grades in this case can truly be motivating. Independently of this grading we can choose to keep track of the degree to which knowledge and skills students have been attained for educational planning purposes.

The reason for assigning tasks to students - e.g. homework assignments, projects, papers, class work, class presentations is because the teacher believes that performance on the task will help the student to learn. But what if the student completes all the tasks specified by the teacher but doesn't pass the exam? Who is responsible for the failure, in this case, the student or the teacher? The answer to this question is not as simple as it might seem.

These are truly complex problems and I hope that I have been able to show that 'standards-based grading', for all of its seeming rationality, in the end, is a simplistic solution that will be no more effective than many others that are being grasped at in our state of desperation concerning the continued failure of our
schools. I hope that I have shown why grades based on tests do not have the motivational value that is ascribed to them and that they do not produce educationally useful information. Educationally useful information is what we most need at this moment to support the movement for educational reform and renewal. Educationally useful information is simply information on the extent to which our most valued learning goals are being achieved. This information should not be used to punish or reward teachers and students, but exclusively to plan how to help students to attain the learning goals or standards.

If we feel that we must give students grades, let us put all students on an even playing field with regard to being able to attain the highest grade. To do this let us create challenging and worthy projects in our educational programs, projects that are demonstrably helpful to students in attaining valued learning goals. Let us have high standards of performance for these projects and let us give the high grades to those students who meet the challenge. Along these lines we can design educationally motivating activities for students at all levels of achievement. Remember that many students are not motivated by grades! Many are motivated by the possibility of learning, by worthy challenges, by the possibility of accomplishing something that improves the world. Let's make school experiences motivating for them as well.

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