

Research Brief

Role of Zero in Grading

Question: What is the role of “zero” in grading?

Summary of Findings:

A student who consistently makes high marks falls into some hard times for a couple of weeks, in fact, she did not turn in one assignment. It was recorded as a “0” and her grade in the course reflected that one lapse. Another student has received low marks on assignments, although while he is showing continuous growth, he continues to receive “Fs” on his assignments that are translated into “0s.” When his scores are calculated, the “Fs” do not reflect what he learned and his final grade is a “Fail.” Another student has turned in fewer than half of the assignments and the grades for the missing assignments are “0s.” Both she and the young man mentioned above received the same final grade of “F,” yet clearly the male student may have learned a great deal more than the female student. According to the available literature, the purposes of grading are to: inform instructional decisions; document both students’ and teachers’ progress; and provide feedback to the students, parents, and teachers about what has been learned and what students are able to do with that knowledge. If these are the purposes of grading, what role does and should a zero play in the assessment of what has been learned?

According to several authors, giving students a zero lets them too easily off the hook, seldom serves as a motivator for them to do better and is not an accurate reflection of what has been learned. While students do need to be responsible and accountable for their work, assigning a zero skews the grade and it tends to be inaccurate. An equitable distribution would make the grade more appropriately representative of what a student had learned. Typically grade spans are 100-94=A, 93-84=B, 83-73=C, 72-64=D, 63-0=F. If using letter grades, an “F” equates to a 0. The literature suggests that it should be a 1.0 not a zero. According to several articles, each mark should have an appropriate influence on a student’s grade.

Some schools and districts are exploring recording a 50 or 60 in lieu of an “F” or “0” because then it helps make the spread more equitable. An example of scoring in the Olympics was cited where the high and low scores are thrown out so that one judge is not in control of the results (Policies work against standards). A zero plays the role of the judge that is in total control of the outcome of the grade. The following charts taken from Wormeli’s book, *Fair Isn’t Always Equal*, pages 138-139, visually demonstrate the effect of a zero on a student’s grade.

Negative Impact of a zero on the 100 – Point Grading Scale

Test Scores for Six Tests	Percentage	Grade
0, 100, 100, 100, 100, 100	83	C+
60, 100, 100, 100, 100, 100	93	B+

Comparing the negative impact of zero on the –point and 100 point scales

Test Scores for Six Tests	Percentage	Grade
4.0, 4.0, 4.0, 4.0, 4.0, 0	83	C+
100, 100, 100, 100, 100, 0	83	C+

Using 1.0 as the low score on the 4-point scale

Test Scores for Six Tests	Average	Grade
1.0, 4.0, 4.0, 4.0, 4.0, 4.0	88%	B

Using the mean on the 4-point scale

Test Scores for Six Tests	Mean	Grade
0, 4, 4, 4, 4, 4	3.3	B
1, 4, 4, 4, 4, 4	3.5	B+

The biggest argument against utilizing 50 or 1.0 in lieu of a zero is that students would not experience the consequences of not doing their work and will not be motivated to do better. However, as the previous charts indicate, one zero can have a devastating effect on a grade and seldom spurs the student on to do better. Some schools and districts are using systems such as:

- A, B, C, not yet achieved
- A, B, keep going
- A, B, C, I (incomplete)
- Proficient, capable, adequate, limited, poor
- Exceeds standards, meets standards, making progress, getting started, no attempt
- Advanced, proficient, basic, below basic (Wormeli, p. 158)

For those students who received an Incomplete, Not yet achieved, keep going, no attempt, poor, or below basic, they are expected to continue to get the assignments done in order to move the quality of their work up to at least a sufficient level. Some ways in which this can be done are to require students attend before and/or after-school tutoring and/or Saturday school/tutoring. If they still have not measured up to the standards, they must attend summer school.

Faculty should discuss and agree upon the following when establishing a grading policy:

- learning goals of the school
- the purposes of grades
- factors that should be included when grading
- the role of zero and how lack of achievement will be assessed and recorded
- weighting of grades
- ways in which to document student progress
- how feedback will inform the instructional program

- programs that will assist students and help them become responsible for their own learning
- communication with students and parents about the school's grading policy and expectations
- define and develop meaningful assessments
- periodic reexamination, assessment and modification of the grading system

Online Resources:

- Are students getting a free ride?
Some pros and cons of using “50” instead of zero as the lowest grade are described in this article.
<http://www.nysut.org/newyorkteacher/2003-2004/040602grading.html>
- Assessment for learning
This article provides an overview of the role and importance of assessment where students are guided to be responsible for their own learning and intellectual growth.
<http://www.edweek.org/ew/articles/2002/03/13/26stiggins.h21.html>
- Competitive grading sabotages good teaching
Reasons why competitive grading is unproductive are presented in this article.
<http://www.pdkintl.org/kappan/krumbol.htm>
- Grading policies that work against standards...and how to fix them
Four typical grading policies that tend to work against students are described and remedies are provided in this piece.
http://www.findarticles.com/p/articles/mi_qa3696/is_200012/ai_n8921332/print
- Grading with points: The determination of report card grades by high school science teachers
Results of research on science teachers who use a point system to grade students are reported in this article.
http://www.findarticles.com/p/articles/mi_qa3667/is_199803/ai_n8797491/print
- Maximum grades, minimum motivation
This is a brief statement citing reasons why a score of “50” given to a student who has not done work could be detrimental to them.
<http://www.edexcellence.net/foundation/gadfly/issue.cfm?id=151#1850>
- The case against zero
Some reasons why zeros should not be used in grading are given in this piece.
http://www.ncpep.org/sail/Case_Against_Zero.pdf#search=%22%22The%20case%20against%20zero%22%22

- The Pavlovian dogs of education
This editorial describes why grades are Pavlovian and counterproductive.
<http://daily.stanford.edu/article/2005/10/27/thePavlovianDogsOfEducation>

Books

- Marzano, R. J. (2000). Transforming classroom grading. ASCD: Alexandria, VA.
This book covers the gamut of the history of grades, to issues in policies and procedures, as well as some suggestions for grading systems and considerations.
<http://www.ascd.org/portal/site/ascd/template.book/menuitem.ccf6e1bf6046da7cdeb3ffdb62108a0c/?bookMgmtId=7b92a2948ecaff00VgnVCM1000003d01a8c0RCRD>

Wormeli, R. (2006). Fair isn't always equal. Stenhouse: Portland, ME.

“Differentiated instruction is a nice idea, but what happens when it comes to assessing and grading students? What's both fair and leads to real student learning? Rick Wormeli offers the latest research and common sense thinking that teachers and administrators seek when it comes to assessment and grading in differentiated classes. Filled with real examples and ‘gray’ areas that middle- and high-school educators will easily recognize, Rick tackles important and sometimes controversial assessment and grading issues constructively.”

http://www.stenhouse.com/productcart/pc/advSearch_p.asp?idcategory=0&idSupplier=&priceFrom=0&priceUntil=999999999&idBrand=0&sku=&resultCnt=20&keyword=Fair+Isn%27t+always+equal&x=12&y=10

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