***DERO Technical Services***
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# *CUT-OFF values  - Grade Values – Rounding Up or Down*

First and foremost, I would like to thank PSUG-MA user group for putting up with me as I try to tackle this area and make sense of it for area schools.  Special thanks to Brian Andle as always!

The Web Gradebook is without doubt a java based calculation application.  Depending upon which Standard Guru your curriculum leadership team have read, "most believe that averaging and percent is contrary to the standard-based movement.

Before the Web Gradebook was able to handle standards, districts still had to set up conversion scales so teachers would have choices when entering grades via PowerTeacher Final Grade

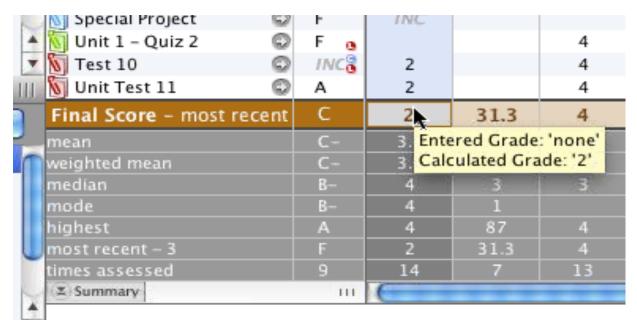| Grade/Label | Description | Cut-off | Grade Value |
|---|---|---|---|
| E | Extends | 90 | 90 |
| M | Meets | 80 | 80 |
| A | Approaching | 70 | 70 |
| B | Below | 60 | 60 |
| NA | Not Assessed | 0 | 0 |

Options.   Often with these alphanumeric scales, we could leave grade value blank and just enter a cut-off score – the highest # ( 90 in this case ) would be the first value (E) in the teacher drop down window.  ***PLEASE NOTE- I AM NOT SUGGGESTING any of these values and or descriptions.*** The "POWER" in PowerSchool is the flexibility of each district establishing it's own methodology.

Once standards could be associated to assignment(s) in the Web Gradebook, grade values and cut-off values took on new meaning.   For the purposes of the rest of this guide, lets assume that your

| School | Default Standards Final Grade | Teacher Modify Default | Most Recent Calculation | Teacher Modify Most Recent |
|---|---|---|---|---|
| Beal Early Childhood Center | Most Recent | ☑ | 3 (33.3%, 33.3%, 33.3%) | ☑ |

school is using the default settings in PT Admin for controlling the calculated values in Web Gradebook.  Final Calculated Grade* will be an equally weighted calculation of the most recent 3 scores for a given standard.

In this example, the teacher is presented with lots of EVIDENCE but the calculated grade of 2 is the final grade since the students last three entries for that standards were 2-2-2.

| | Special Project | | F | *INC* | | | 4 |
|---|---|---|---|---|---|---|---|
| ▲ | Unit 1 – Quiz 2 | | F | | | | 4 |
| ▼ | Test 10 | | *INC* | 2 | | | 4 |
| ||| | Unit Test 11 | | A | 2 | | | 4 |
| | **Final Score – most recent** | | C | 2 | 31.3 | | 4 |
| | mean | | C– | 3. | Entered Grade: 'none' | | |
| | weighted mean | | C– | 3. | Calculated Grade: '2' | | |
| | median | | B– | 4 | 3 | 3 |
| | mode | | B– | 4 | 1 | |
| | highest | | A | 4 | 87 | 4 |
| | most recent – 3 | | F | 2 | 31.3 | 4 |
| | times assessed | | 9 | 14 | 7 | 13 |
| | Σ Summary | | ||| | | | |

The teacher would most likely override this grade since he or she has 14 assessments of this standard, highest was 4, mode was 4, median was 4. If the teacher overrides that grade, Entered Grade would no longer read "none" rather the value they choose.

Using the criteria above the following scenario will occur. A teacher associated the same standard to multiple assignments, Gradebook will auto calculate a value based on the last three scores on that standard

| Cut-off | Grade Value |
|---|---|
| 90 | 90 |
| 80 | 80 |
| 70 | 70 |
| 60 | 60 |
| 0 | 0 |

Using the current cut- off scale – three examples
1) E, E, E = E
2) E, E, M = M
3) E, M, M = M
Using the Grade Values for these examples
  1) 90-90-90=90
  **2) 90-90-80=87**
  **3) 90-80-80=83**

A calculated value of 90 = E.
A calculated value 80-89.9 = M.
Most teachers would override 87 to give that child an for an M.
ALTER YOUR CUT OFF VALUE SO PTG CAN DO IT FOR THEM

**RECOMMENDATION:  CUT-OFF VALUES SHOULD BE HALF OF GRADE VALUE DELTA**
FOR THIS SCALE : CUT-OFF VALUES WOULD BE 85,75,65,55.  For testing in Excel your equation would be  =IF(E33<=65,"B",IF(E33<=75,"A",IF(E33<=85,"M","E")))

# Cut off vs Grade Value in Conversion Scales

|  | SCALE A | | | | SCALE B | | NEW |
|---|---|---|---|---|---|---|---|
| Grade Label | Cut Off | Grade Value | | Grade Label | Cut Off | Grade Value | CUT-OFF |
| 4 | 87.5 | 100 | | E | 90 | 90 | 85 |
| 3 | 62.5 | 75 | | M | 80 | 80 | 75 |
| 2 | 37.5 | 50 | | A | 70 | 70 | 65 |
| 1 | 12.5 | 25 | | B | 60 | 60 | 55 |
| N/A | 0 | 0 | | N/A | 0 | 0 | 0 |

## RECOMMENDED CUT-OFF VALUE = HALF OF THE GRADE VALUE DELTA

| | |
|---|---|
| 100+75/2=87.5 | 90+80/2=85 |
| 75+50/2=62.5 | 80+70/2=75 |
| 50+25/2=37.5 | 70+60/2=65 |
| 25+0/2=12.5 | 60+50/2=55 |

*THESE EXAMPLES HAVE ORIGINAL CUT OFF SCALE IN GREEN ABOVE*

< "=IF(E33<=69,"B",IF(E33<=79,"A",IF(E33<=89,"M","E")))"

**in PT Admin your district stays with the default of
Most Recent 3 and equal weighting of 33%- let's see what happens**

| SCALE B | Most Recent | 2nd Recent | 3rd Recent | Final Score | |
|---|---|---|---|---|---|
| Example 1 | E | E | E | E | < Compared to Cut-Off |
| Grade Values | 90 | 90 | 90 | 90 | < Calculated Average |
| NEW CUT-OFF | | | | E | < Compare NEW Cut-Off |
| Grade Values | 90 | 90 | 90 | 90 | |
| | | | | | |
| Example 2 | E | E | M | M | < Compared to Cut-Off |
| Grade Values | 90 | 90 | 80 | 87 | < Cacluated Average |
| NEW CUT-OFF | | | | E | < Compare NEW Cut-Off |
| Grade Values | 90 | 90 | 80 | 87 | |
| | | | | | |
| Example 3 | E | M | M | M | < Compared to Cut-Off |
| Grade Values | 90 | 80 | 80 | 83 | < Calculated Average |
| NEW CUT-OFF | | | | M | < Compare NEW Cut-Off |
| Grade Values | 90 | 80 | 80 | 83 | |

< Calculated Value displays correct Grade

< Your teachers would PROBABLY round 87 up to E

**THESE EXAMPLES HAVE NEW CUT OFF SCALE IN GREEN SCALE ABOVE**

| | |
|---|---|
| [yellow box] | < "=IF(F40<=37.4,"1",IF(F40<=62.4,"2",IF(F40<=87.4,"3","4")")" |

| SCALE A | Most Recent | 2nd Recent | 3rd Recent | Final Score | |
|---|---|---|---|---|---|
| Example 4 | 4 | 4 | 4 | 4 | < Compared to Cut-Off |
| Grade Values | 100 | 100 | 100 | 100 | < Calculated Average |
| | | | | | |
| Example 5 | 4 | 4 | 3 | 4 | < Compared to Cut-Off |
| Grade Values | 100 | 100 | 75 | 92 | < Cacluated Average |
| | | | | | |
| Example 6 | 4 | 3 | 3 | 3 | < Compared to Cut-Off |
| Grade Values | 100 | 75 | 75 | 83 | < Calculated Average |
| | | | | | |
| Example 7 | 4 | 3 | 2 | 3 | < Compared to Cut-Off |
| Grade Values | 100 | 75 | 50 | 75 | < Calculated Average |
| | | | | | |
| Example 8 | 4 | 2 | 2 | 3 | < Compared to Cut-Off |
| Grade Values | 100 | 50 | 50 | 67 | < Calculated Average |
| | | | | | |
| Example 9 | 3 | 2 | 2 | 2 | < Compared to Cut-Off |
| Grade Values | 75 | 50 | 50 | 58 | < Calculated Average |
| | | | | | |
| Example 10 | 2 | 2 | 2 | 2 | < Compared to Cut-Off |
| Grade Values | 50 | 50 | 50 | 50 | < Calculated Average |
| | | | | | |
| Example 11 | 2 | 2 | 1 | 2 | < Compared to Cut-Off |
| Grade Values | 50 | 50 | 12.5 | 38 | < Calculated Average |
| | | | | | |
| Example 12 | 3 | 1 | 1 | 1 | < Compared to Cut-Off |
| Grade Values | 75 | 12.5 | 12.5 | 33 | < Calculated Average |
| | | | | | |
| Example 13 | 2 | 1 | 1 | 1 | < Compared to Cut-Off |
| Grade Values | 50 | 12.5 | 12.5 | 25 | < Calculated Average |