

# Skewed Marks in Web Marks

Last week, we were asked for feedback on Web Marks and I wrote in what some of my issues were. I am sharing what I sent in with you (with slight modification) because I think all teachers should be aware of some of the issues with the way Web Marks calculates grades because it can lead to very skewed marks.

Here is an example of a student's marks for 2 activities:

	Weight	K (20%)	T (15%)	C (15%)	A (20%)	Total
Test 1	4x	29/30	0/2	3/3	9/10	41/45
Assignment 1	1x		19/20	1/4		21/24

**Problem 1:** Web Marks tracks percentages of marks in each category instead of the marks earned in each category (percentage based instead of denominator based). Then Web Marks allows teachers to apply a weighting to each assessment. Here is an example of why this is problematic:

- The test has a weighting of "4x" and the student earns 0/2 in the "Thinking" category.
- The assignment has a weighting of "1x" and the student earns 19/20 in the "Thinking" category.
- Based on the way that Web Marks will calculate the total "Thinking" mark for the student, the two "Thinking" marks from the test will be worth 80% (40% each) of the total thinking mark for the student, and the 20 "Thinking" marks from the assignment will be worth 20% (0.9% each) of the total thinking mark for the student.
- The result is that one "Thinking" mark on the test has an impact of about 40x more on final "thinking" mark than the assignment. **Based on the Web Mark calculation, the student would earn 19% in "Thinking", when in reality, they have earned 86% of the marks in the category.**

**Problem 2:** The final mark is further skewed by the additional weighting that is applied to the final percentage in each KTCA category. To illustrate the issue with this, here is an example:

- Say there have been 10 assessments that include "Knowledge" marks in a course. The category weighting of Knowledge is 20%
- There have been 2 assessment that include "Thinking" marks. The category weighting of Thinking is 15%.
- Because of this, each one of the "Thinking" assessments will have a much stronger bearing on the final mark, because the category weightings of K and T are similar but there have been many more K assessments..

**These two problems combine** to determine marks that can be significantly different from the actual marks that are earned by students in the course.

- Web Marks calculates the running average of 76% in the course after the two activities shown above.
- **BUT they have actually earned 88% of the marks in the course (61/69), a discrepancy of 12% in a student's mark from where they would expect to be.**
- If more activities are added to the course in a similar manner, this discrepancy will remain, and could even increase.

**Problem 3:** The final problem with the way Web Marks calculates marks is that it is very complicated and thus not transparent to students (or teachers). It is essential to the learning process that teachers and students understand where their marks come from and where they can improve.

**Solution?** To prevent significant discrepancies such as these, teachers have to be very careful of how many marks are assigned for each task in each category of KTCA. Here are some options:

1. Keep track of your own marks and use Web Marks for reporting purposes only. You can then choose how to calculate activity percents and running averages in a way that suits your course. Many teachers use their own Google Spreadsheets to do this.
2. If you continue to use Web Marks you must keep in mind that **giving an activity a weight of “4x” compared to an activity of “2x” DOES NOT mean the “4x” activity will have twice the weight of the “2x” activity UNLESS you use ALL 4 CATEGORIES FOR EVERY ACTIVITY.** So, to make sure the weightings do what you want, here are some options:
  - a. Include all 4 categories on EVERY activity. Then the weightings will be accurate to the relative weight of the activities. If this is not possible,
  - b. You must keep a close eye on the **Weight %** column in the Setup/View Course Activities or the **Activity Overall** number in the Mark Entry tab and make sure, for example, the percent for the test is twice the percent for the quiz. To do this you will need to play with the activity weights until it works.
3. Use other existing mark recording software, though few are able to incorporate the categories K, T, C, A and when they do, many similar problems arise.

**Other notes:** Putting activities in units does not affect mark calculations.