A Simple Mastery Grading System: A Peak Behind the Oz Curtain

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Common Resistance to Mastery-Based Grading Systems

So why should educators bother to move away from a traditional or standards-based grading systems? To answer that question we need to examine traits of the SIMPLE mastery-based grading system that were designed to address specific problems of traditional or standards-based grading.

SIMPLE was designed to be binary, not graduated: Mastery Achieved or Not Yet. We start with the assignments and determine how far each one is from perfect mastery. On the other hand, graduated grades and number scales label the levels of incompetence–exactly what motivational theory tells us is completely demotivating. At first glance it may appear that turning in an assignment that is -40% from perfect mastery is the same message, but it is not.

The key difference is the lack of averaging (or power-law scoring). The -40% represents how the learner did on that **one assignment**, then another score for the next, then the next. This is feedback that is informational, not personal because the focus is on each assignment, not the learner. Self Determination Theory, the branch of psychology that examines intrinsic motivation, explains that feedback that contributes to improving competence is motivational because it is informational.

Averaging, on the other hand, to determine a graduated ABCD grade or 4321 scale, ends up representing **the learner**. While we may say we do not label learners, the very nature of averaging is creating a single label which represents that learner over the course of time. Teachers will argue the average represents the learners' work, but the message of averaging becomes very clear to learners over time: YOU are incompetent.

Moving away from sorting or labeling learners sounds like it should be a minor issue to change in today's education world, but this is more entrenched in traditional and standards-based grading than most educators admit. There are certain telltale signs that reveal if we subconsciously cling to traditional practices.

For example, one learner may take one week to complete a learning target, another learner may take twice as long. Regardless of time taken, in a true mastery-based system the grade is the same. It is easy to fall into the trap of thinking this is "unfair" to the learner who completed it faster. This thinking reflects the core subconscious motivation of traditional grading: identify cream-of-the-crop learners and sort them by factors other than mastery. If speed is an important factor, then identify SPEED as a separate measure–do not confuse it for mastery and learning. (You will note in the example reports that time to complete assignments is one piece of information that contributes to monitoring progress, but it is not part of "the grade").

Another example: in this simple mastery system, all learners who complete a content area/course get the same grade: mastery achieved. How many schools, particularly secondary, are okay with all learners getting the same grade for a completed course? Class ranks become obsolete. This reveals the dirty little secret of traditional grading–the primary function is to sort students, not to monitor and support learning. Averaging and class ranking are poor indicators of learning; the late sudden-light-bulb students are punished by their early practice with an average, regardless if they fully understand the concepts in the end. Averaging is best for sorting students, but it is a poor indicator of the more important factor: learning progress.

There are many mastery-based models that still use graduated grades or scales (ABCD or 4321) to label progress. Using graduated grading adds unnecessary complexity that complicates true feedback (which also applies to the multi-point rubrics that try to justify the levels of the graduated grade). With simple mastery grading, you view their body of daily work (practice) to see if they have enough competence to then demonstrate their mastery. If they show competence early, then they can test early. If they don't show competence, then fall back to reteaching and more practice. This is where differentiated instruction comes in to play. Graduated scales become an unnecessary complication.

Long-term Progress Monitoring

With mastery of Learning Targets (LTs) as your progress gauge, you get an instant picture of progress of mastery and learning gaps that need addressing.

Undocumented learning gaps (because they are masked by averages and graduated grading) are one of the biggest detriments to traditional education. Progress is measured by content delivered, not necessarily what is learned, and is obscured by averages or graduated grades. Prerequisites necessary for completing learning targets are ignored because content is delivered by date, not by learning needs. Over time more and more learning gaps become bigger and bigger problems for later grade levels.

The pandemic exposed this horrible weakness in our educational system: “They didn’t finish 4th grade content, should we call them 5th graders? I guess so…?!?…”

Mastery-based is better suited for situations like the pandemic, as well as personalized or customized learning. Progress is measured by what learning targets they have mastered, and more importantly, what learning targets they have NOT mastered. From a content standpoint, grade levels become irrelevant (we will discuss grade levels in a later chapter).

What level of rigor is mastery?

The mastery cutoff is a crucial education decision for educators–set too low and mastery doesn’t have much meaning. Mastery is not a traditional pass-fail system. Benjamin Bloom, when pressed on what level mastery should be set, said it should be A-level work IF…and this is a big if…the learning is a mastery-based environment. In a classroom where learners get continual feedback and freedom to fail until they develop enough competence to reach mastery, you can set the bar much higher than a traditional setting.

Hypothetical problems tradition-supporting educators will point out.

Learners will fall further behind. This argument doesn’t make much sense since the traditional system’s solution is to test regardless whether learners have the skills or understanding. Just give a mediocre grade and move on, which leaves gaps in learning. Does the process of masking learning gaps really resolve the issue of students falling behind?

Gaps are more clearly monitored in the simple mastery-based system. What happens when a student takes longer than they should to master content? Educators make decisions about which gaps you can live with; in traditional settings you have no idea where specific gaps are until they become glaring. Mastery-based

grading highlights where the gaps are--you can move on with gaps but at least you have record of those gaps. You can re-address them when the gap becomes a prerequisite to a new learning target later on. The traditional system? Sweep it under the rug with a graduated grade and hope it doesn't surface for the next teacher.

Learners won't do the work if it is not graded. This is a classic example of mixing of behavioral "carrot-&-stick" motivators within academic monitoring. The grade should represent a learner's ability or understanding. Academic penalties for late or missing work muddy the measures for learning. Imagine a basketball coach telling a student player they will subtract 10 points from their free-throw average because they were late to practice. This doesn't make sense as it makes the free throw average absolutely meaningless.

Giving zeros doesn't get the work done either. Educators sometimes label these practices as "real-world" consequences, but there is nothing real-world about it. Can workers in the workplace can tell their boss, "I am not going to get my work done today, give me a zero"? The Simple Mastery-Based Grading system has natural consequences, especially for learners who "game" the system by putting in too-little effort on the hope of getting by. If you don't do well on the daily work, you are not ready to demonstrate mastery. This has higher motivation than giving a low grade and moving on.

You are putting all the assessment eggs is one basket. That is only a problem in a traditional system of content-delivered-now-test-on-this-date. If you use daily work as feedback tools to determine readiness for mastery, you have many data points for measuring a learner's level of mastery. Demonstration of mastery (the test or the project) is only confirming what the daily work already tells us. You don't need to average daily work when its purpose is determine when a learner is ready to demonstrate mastery.

Assessments and reporting should only represent single standards. It has been a "rule" that you have to measure each standard separately, hence standards-based grading. From a reporting standpoint (especially for parents), delineating every standard makes comprehending progress overwhelming. For reporting an overview of progress, you can cluster standards to form LTs. Parents primarily care about general concepts, not volumes of specific standards. Educators behind the scenes

need to worry about how each standard is learned and assessed within the LTs. But for progress reporting, clustering standards makes general progress monitoring easier.

What do you do with learners who finish early? This is a real “problem” in classroom settings, especially for teachers that depend on whole class instruction as their main delivery strategy for every learning target. This was particularly problematic in years past where technology tools were not very prevalent. In a personalized mastery-based system, the educator’s skill to create flipped instructional content quickly becomes very important. No one wants all learners getting all instruction via videos, but often you need that flexibility for learners who are ready to move on before the majority of their classmates are ready. AI tools are getting so much stronger at helping teachers create tailored content on the fly.