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INTRODUCTION / RESEARCH OVERVIEW

It is proposed, that the use of the systematic implementation of student paced mastery grids can increase student achievement and accountability. The self paced implementation of mastery grids can provide an instructional framework to meet the varied needs and pace of all learners, and ensure the mastery of learning targets before learners move forward within the content. Mastery Learning also known as Competency or Outcome based learning has been strongly supported by the academic literature. The meta-analysis of 108 independent studies of the effects of mastery learning showed that it has moderate to large positive effects on student performance (Kulik, Kulik, & Bangert-Drowns, 1990). The synthesis of research also demonstrates that the results of well-designed studies show extremely positive student learning outcomes and teacher variables (Guskey & Gates 1986). With the support of both research and literature for mastery learning a framework for the systematic implementation of these methods was required. The implementation of mastery learning in order to be successful required the design of systems and methodologies to:

- · Design and create mastery grids
- Track and monitor student progress
- · Assess and provide corrective actions for learners
- · Manage student movement and interaction with curriculum
- · Grade and record student mastery

inally Adapted From: Guskey, Thomas R., Implementing Mastery Learning, 2nd Edition, Wadsworth Publishing, Copyright 1997

It is with this in mind, that The Grid Method - Mastery Learning System has been developed, created and implemented. This system in accordance with the academic literature that exists should "under mastery learning conditions [cause] 80 percent or more of the students in a class [to] reach the same high level that only about 20 percent do under more traditional approaches to instruction" (Guskey 1997). This provides a strong rightward shift to the traditional bell curve seen in the context of whole class or teacher paced, instructional models. These proposed results and outcomes of implementing mastery learning have been replicated and will be shared within this section.

The data presented has been collected from pilot classrooms implementing The Grid Method - Mastery Learning System. This collected data was taken from individual units and analyzed based on percentage of students within standard deviations of success criterion. While the grading scale varies for some groups the increased percentage of students within higher achievement subsets is remarkably clear. The classrooms which piloted the system and provided their data for use include 7th Grade Science, 6th Grade ELA, and 9th Grade Algebra content areas.



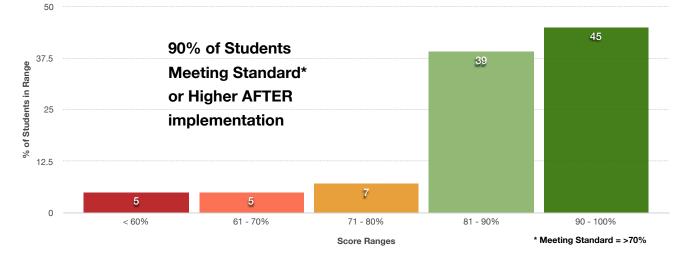
The Grid Method - Mastery Learning System - 7th Grade Science Pilot Classroom

7th Grade Science - The Grid Method - Pilot Classroom Results: This data was collected form a 7th grade Science classroom. The data was taken from the post data collected after implementing The Grid Method to teach an Earth and Moon unit. The data shows a year to year comparison. The first year being without the system implementation. The Second year being after The Grid Method has been implemented. The two population while different had the same instructor, same content, same lessons, and same assessment given. The class that piloted the system consisted of 83 students. The class that did not implement the system Included 72 students. The district is classified as "High Needs" Urban, and 100% of students are eligible for free and reduced lunch.

AFTER IMPLEMENTATION (2015)

STUDENT SCORES	% AFTER IMPLEMENTATION
< 60%	5
61 - 70%	5
71 - 80%	7
81 - 90%	39
90 - 100%	45

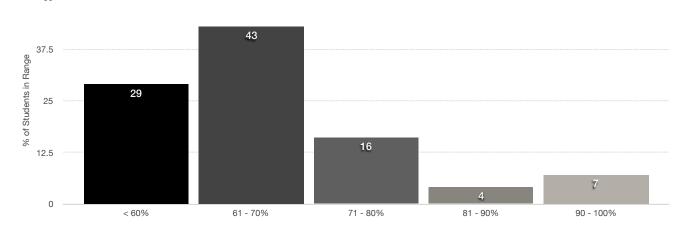
AFTER IMPLEMENTATION - Student Post Unit Data



BEFORE IMPLEMENTATION (2013)

STUDENT COMPETENCY	% AFTER IMPLEMENTATION
< 60%	29
61 - 70%	43
71 - 80%	16
81 - 90%	4
90 - 100%	7

BEFORE IMPLEMENTATION - Student Post Unit Data



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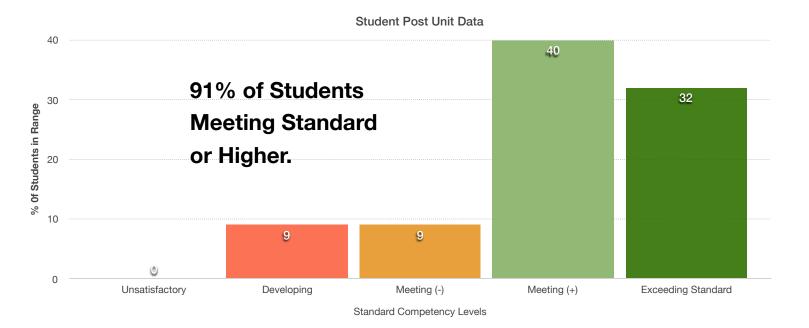
The Grid Method - Mastery Learning System: 6th Grade ELA Pilot Classroom

ELA - The Grid Method - Pilot Classroom Results:

This data was collected form a 6th grade ELA classroom. The data was taken from the post data collected after implementing The Grid Method to teach a figurative language unit. The class that piloted the system consisted of 22 students. The district is classified as "High Needs" Urban, and 100% of students are eligible for free and reduced lunch based on low socioeconomic status. Note: this classroom uses a Standards based grading system and does not use the traditional % based alphabetical grading scale.

Student Post Unit Results

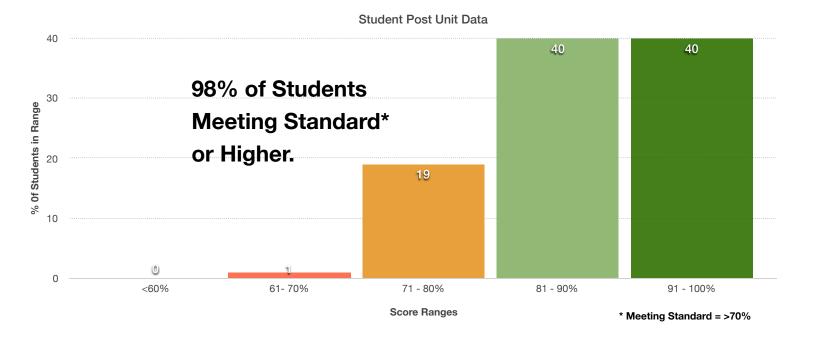
STUDENT COMPETENCY	% OF STUDENTS AT LEVEL
Unsatisfactory	0
Developing	9
Meeting (-)	9
Meeting (+)	40
Exceeding Standard	32



The Grid Method - Mastery Learning System: High School Algebra Pilot Classroom

HS Algebra - The Grid Method - Pilot Classroom Results: This data was collected form a High School Algebra classroom. The data was taken from the post data collected after implementing The Grid Method for the duration of the unit in which the data was taken from. The class that piloted the system consisted of 92 students. The district is classified as "High Needs" Rural, and 50% of students are eligible for free and reduced lunch based on socioeconomic status.

STUDENT SCORES	% OF STUDENTS AT LEVEL
<60%	0
61- 70%	1
71 - 80%	19
81 - 90%	40
91 - 100%	40



Student Post Unit Results