



Formative Assessment : Assessing Student Understanding to Guide Learning

Justin Huntley
The Greatest High School on Earth



Introduction

Formative Assessment

Formative Assessment is certainly not a new concept. The use of the term formative come from Michael Scriven's (1967) essay about educational evaluation. It is however the 1998 work of Black and William and the two works that they published that really brought large notoriety to the use of formative assessment. One of the works was a review of empirical research studies focused on classroom assessment and the other was a meta-analysis in which they conclude that when formative assessment is used as an educational intervention, student learning showed large gains. (Popham 2008)

One of the reasons that formative assessment has seen a resurgence in interest is that educators have realized that once-a-year summative standardized testing doesn't happen frequently enough or provide the information needed to make instructional decisions. In addition these tests do not provide a sufficiently detailed picture of student learning to enable teacher to identify ways to help individual students. (Stiggins 2005)

What formative assessment is not is simply more multiple choice tests geared at providing data on what state standards a student has mastered. When using formative assessment for learning you want to use many different assessment methods to provide students, teachers, and parents with a constant litmus test of the evidence of student progress in mastering the knowledge and skills students need to master the state standards built into classroom curriculum. (Stiggins 2005)

Data from the Greatest High School on Earth

	Does Not Meet:	Nearly Meets:	Meets:	Exceeds:	Total Tested
2008-2009 Reading	98 (20 %)	103 (21%)	221 (45%)	69 (14 %)	491
# of students who failed the 1 st semester of English at the 10 th grade year in 2009:					39 (8%)
2008-2009 Math	126 (31%)	105 (26%)	121 (30%)	52 (13%)	404
# of students who failed the 1 st semester of Math at the 10 th grade year in 2009:					46 (9%)

Principle: The data shows that while 41% of our students did not pass the OAKS in Reading. Yet we only had 8% of students receive failing grades as 10th graders in their English courses. Similarly 57% of our students did not pass the OAKS in math and 9% of students receive failing grades as 10th graders in their Math courses. Several issues arise

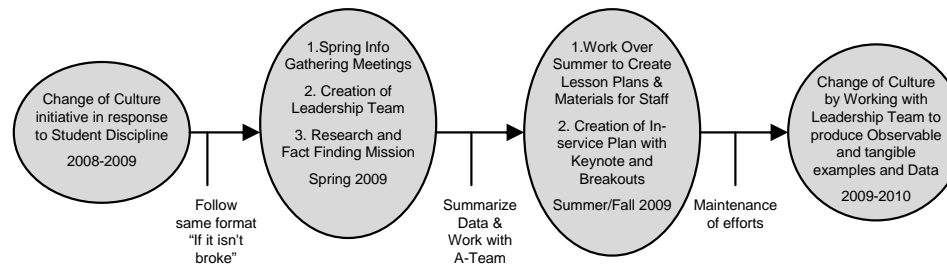
1. Are our courses properly aligned to State Standards?
2. Are our graded practices assessing, behaviors or learning?
3. Are we assessing frequently enough to know where students are in their mastery of the standards?

Perspective of the Plan and the Methods to Achieve it

Goal: The goal of this plan is to provide teachers of the Greatest High School on Earth with the training and tools to effectively use Formative Assessment as a teaching strategy within their classrooms.

Proposed Outcome: Based on the Research, If teachers are effectively using Formative Assessment and using it to assess students mastery of the State Standards than we should see and increase in our OAKS test scores. In addition we should see our grading practices more accurately represent the mastery of State Standards.

Game Plan: The plan is to follow a very similar process to what we have already done in regards to our student discipline and literacy efforts in 2008-2009. We intend to have a series of mini staff meetings in the Spring of 2009, where we will solicit ideas and feedback on how to better serve our students educationally and to help them pass the OAKS and the New Graduation Requirements. In doing so we will create a PLC (Professional Learning Community), whose sole purpose will be to look at the feedback from staff and facilitate the implementation of the use of Formative Assessment school wide. The team will be in charge of creating the details of the how to achieve buy in, the implementation and the collection of data to assess the effectiveness of the plan.



Instructional Strategies that Affect Student Achievement

Category:	Ave. Effect Size (ES)	Percentile Gain	No. of ES's	Standard Deviation
Identifying similarities and differences	1.61	45	31	.31
Summarizing note taking	1.00	34	179	.50
Reinforcing efforts and providing recognition	.80	29	21	.35
Homework and practice	.77	28	134	.36
Nonlinguistic representations	.75	27	246	.40
Cooperative learning	.73	27	122	.40
Setting objectives and providing feedback	.61	23	408	.28

Figure B. Marzano, Gaddy, Dean (2000).

Principle: Formative assessment can be done in a variety of ways and if used as an assessment for learning rather than an assessment of learning than teachers need to be aware of what the research shows in regards to the different types of Instructional Strategies and how they affect student learning.

Anticipated Results and Conclusions

Figure C depicts the increase in learning when differing quantities of formative assessments are employed during a 15-week session.

# of Assessments	Effect Size	Percentile Gain
0	0	0
1	0.34	13
5	0.53	20.0
10	0.60	22.5
15	0.66	24.5
20	0.71	26.0
25	0.78	28.5
30	0.82	29.0

Figure C. Marzano (2007).

Conclusion

The research and the data clearly shows that proper use of formative assessment as an assessment for learning rather than of learning can have a profound affect on the learning gains that students make. It is our belief that after being shown this research, being provided training on how to effectively integrate this into their classrooms and after experiencing the results that formative assessment can produce that our staff will help make this part of our culture here at the Greatest High School on Earth. The stakes are too high and the outcomes too great, to not makes this a priority. We owe it to our students to do "Whatever it Takes"!

References

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