

Resources

Increasing Rigor Throughout the Lesson: Data-Driven Classroom Best Practices

1. Objectives: Rewrite and tighten with assessments in mind:
 - Connect objective to how the students will be assessed.
 - Write “know/do” objectives: Students will know _____ by doing _____.
 - Look at test questions beforehand to be sure the skills assessed on the test were worked into the daily lesson.
 - Write an assessment of the skills immediately after the objective, at the top of the lesson plan.
 - First write assessment questions that align to objective; then break the objective into smaller chunks that will ensure mastery of all the skills needed to answer each question correctly.
 - Use verbs from Bloom’s taxonomy to ensure that the objective is rigorous.

2. Do Now (five- to ten-minute individual exercise to start class)
 - Use Do Now as a re-teach tool: Write questions that students struggled to master on the last interim assessment.
 - Use mixed-format questions for a skill: multiple-choice, short answer, open-ended, and so on.
 - Organize questions sequentially according to difficulty.
 - Spiral objectives, skills, and questions from everything previously learned to keep student learning sharp.
 - Develop Do Now tracking sheet for teachers and students that shows student performance on the skills in each Do Now.
 - Make Do Nows that look like test questions and make sure they are reviewed in class.
 - Observe students’ answers during Do Now and note kids with wrong answers to follow up with them during oral review.
 - Add multiple-choice questions to Do Now to allow real-time assessment.
 - Add why and how questions (for example, Why did you choose this answer? How do you know your answer is correct?) for different levels of learners and to push thinking.
 - Revisit yesterday’s objectives in the Do Now.
 - Collect and grade four straight Do Nows, and for the fifth day let students correct their first four Do Nows for extra points toward their Do Now grades.

3. Questioning to check for understanding and increase engagement:

- Develop whole class responses to student answers (for example, snap if you agree, stomp if you don't) to engage 100 percent participation.
- Use cold call: Avoid just calling on students with hands raised.
- Move from ping-pong to volleyball: Instead of responding to every student answer yourself, get other students to respond to each other: "Do you agree with Sam?" "Why is that answer correct (or incorrect)?" "What would you add?"
- Script questions in advance of the lesson to make sure they scaffold appropriately and address rigor at varied levels.
- Have an observer record teacher questions: highlight where students are succeeding and where they can grow.

3a. Student error (techniques for helping students encounter the right answer):

- Have a student who struggled initially repeat the correct answer eventually produced by the class.
- Use whiteboards to have every student write a down response to question: whole class shows answers simultaneously so teacher can immediately check to see how many students answered correctly.
- Write questions in plan to specific students who are struggling with a standard; jot down their responses in the plans during class.
- Note in your book or lesson plan what questions students answer incorrectly; call on them again when you revisit that sort of question later in the week.
- Choose "No opt out": do not let students off the hook when struggling with an answer.

3b. Think ratio (techniques to reduce teacher talk and push student thinking):

- Require students to support answers with evidence from the text.
- Feign ignorance (for example, write wrong answer that student gives on the board, let students find the error rather than correcting it yourself; pretend you don't even know that the answer is wrong).
- Ask students: "put it in your own words" about a classroom definition, concept, and so on.
- Reword question to force students to think on their feet about the same skill.
- Use Wait Time to give more students the chance to think through the answer.
- Model "Right is right": press to get the 100 percent correct answer.
- Check for student use of specific strategies and not just correct answers.
- Ask "what if" question: "What if" I took away this information from the problem, how would you approach it?

4. Differentiated instruction (teaching students at different levels):

- Create leveled questions for assessments.
- Include a bonus section of challenging questions.
- Prepare different Do Nows, worksheets, and so on for students at different levels.
- Use data (tracking sheets, interim assessment results, exit tickets) to determine the degree of scaffolding and extra support each student needs.
- Group students according to the skills they need to develop.
- Communicate and collaborate with skills room and special education teachers to develop appropriate scaffolding for special needs students.
- Implement station work.
- Create individual “work contracts” so students have a clear path of what they are working on.
- Use Do Now, exit tickets, and interim assessment data to drive small group re-teach sessions.
- Create assignments with menu options by level (easy, medium, hard)—students can choose or teacher can assign.
- Have observers sit by lower-achieving students during an observation to provide extra support.

5. Peer-to-peer support strategies:

- Observe student work carefully during independent work—enlist strong students to help weaker students determine right answer during review of assignment.
- Have students teach parts of the lesson to small groups of their peers.
- Have students run stations.
- Train peer tutors—teach student tutors how to ask questions instead of giving answers and how to get tutee to do most of the talking.
- Think, pair, share: Have students think of the answer, talk with a partner, and then share as a large group.
- Turn and talk: students turn toward a partner and explain answers to a question.
- Peer to group: student models think-aloud.
- Implement peer editing and revision.
- Develop study groups that jigsaw activities and content.
- Create mentoring relationships: twelfth to tenth grade, eleventh to ninth grade, and so on.

6. Student self-evaluation:

- Create weekly skills check with a tracking chart: students track their own progress on each skill.
- Go over tests after grading them, discussing “Why is choice A wrong?” and similar questions.

- Have students grade their own papers based on a rubric.
- Give students independent practice worksheets with answers on the back so that students can check their own work once completed.
- Create a cumulative rubric (adding skills as taught): have students do periodic self-evaluations with the rubric.

7. Exit tickets (brief class-ending activity to check for understanding of that day's lesson):

- Create a tracking sheet to match the exit ticket.
- Assess the same skills through varied methods.
- Align format to interim assessment.
- Grade immediately.
- Immediately follow up (breakfast, lunch, home-room).
- Answer essential questions on exit ticket.
- Follow up data from exit ticket with next day's Do Now.
- Use exit ticket to determine small group re-teach.
- Engage instructional leaders to design effective exit tickets for newer teachers.
- Monitor whether exit tickets reflect scope and sequence.

8. Homework:

- Develop homework center targeting specific skills identified by interim assessments.
- Review problem areas within homework assignment in class soon after assignment.
- Have students fix homework errors and teach them how to scrutinize errors.
- Make tracking sheet by skill.
- Incorporate spiraled review in homework assignments: include questions and tasks from previously learned standards.
- Create leveled homework (student-specific).
- Design homework that is aligned with interim assessments, state test, SAT.
- Use homework for open-book quizzes.
- Encourage homework completion with classwide or schoolwide competition.
- Include above-grade-level challenge problems.

Achievement Meeting Agenda (45 minutes)

1) Overview (2 min)

- Framing the goals for the meeting

2) Big picture/Reading the Headlines analysis (10 min)

- Are we on track to hit our BHAG targets?
- What areas showed the most progress? What were the instructional steps that drove this? How will you apply those to future lessons?
- Which scholars are making the biggest gains?
- What were some important challenge areas? What was missing instructionally in these areas?

3) Planning for Whole-Class Re-teach (20 min)

- What are the top priority re-teach standards for this class? How will we improve the lessons that will be re-taught?

4) Planning Small Group Instruction (10 min)

- Who are the 3-5 most struggling scholars? Are there other target groups of students you plan to differentiate instruction for?
- What will be the focus of intervention time for each group? How will you differentiate for these students in class?

5) Recap of Next Steps (3 min)

- What follow-up will the teacher commit to and when? What follow-up will the coach commit to and when?

Reflection Meeting Sample Agenda

Goals:

- Check back in on the DDP to ensure we are following through on next steps
- Evaluate student progress on targeted skills and standards in the DDP and readjust the instructional response as necessary.

Materials to Bring:

- Data Driven Plan
- Exit tickets or other student work related to instructional responses

Teacher Pre-Work:

- In the reflection column in your DDP (or using comment boxes) answer the following questions:
 - Did you do what you outlined in your instructional response? (Yes or No)
 - Has the targeted student outcome changed? What is your evidence?
- Please e-mail this updated DDP to me 24 hours before our reflection meeting so we can prioritize our time.

Meeting Agenda:

1. Successes: What next steps did we take that have changed student outcomes?
2. Focus areas: (This could take 3 basic paths.)
 - **Next Steps weren't implemented:** Which next steps from the DDP have not yet been implemented? How can we ensure this happens in the next few weeks?
 - **Plan was implemented, but students are still struggling:** Where have we implemented the plan but students are still struggling? What is our diagnosis from the most recent data? What is the adjusted instructional response?
 - **Plan was implemented, students are improving:** Woohoo! We're seeing lots of progress on the instructional next steps you prioritized. Is there anything that students struggled with on the _____ that we couldn't prioritize then but we could prioritize now? Or are there any misunderstandings or skill gaps you've identified in new material that we need to target in the next few weeks?
3. Next Steps: What are our specific and concrete next steps?

Facilitating the Data Meeting

Description of Strong Coaching	Example Coach Comments
<ul style="list-style-type: none"> ● <i>Test in Hand Diagnosis:</i> The teacher and coach look at the student work together to diagnose student skill gaps or errors. This analysis is concretely driven by evidence in the student work and student responses. If the coach is facilitating a team meeting, each teacher looks at his/her own scholars' data to do the test in hand analysis. 	<ul style="list-style-type: none"> ● "Let's look at question #5 and #8. What do you think your students did well on? Not well on? ... What is your evidence for this?" ● "Let's look at two low, two medium, and two high students. What are you noticing about the what the high students CAN and CAN'T do?" ● "What is the difference between their answer and the best answer ... okay, what would you do instructionally differently to get them to the best answer?"
<ul style="list-style-type: none"> ● <i>Tied to Diagnosis:</i> The coach guides the teacher to develop an action plan based on the diagnosis of student skill gaps or errors. This plan is captured on a data driven plan or incorporated directly into an aims calendar or lesson plan for future lessons. ● <i>Bite-sized:</i> The plan is broken down into concrete, actionable next steps with clear deadlines (i.e. Not "incorporate more non-fiction texts" but "spiral in non-fiction text in do nows 2 times/week.") If the coach is facilitating a team meeting, clear owners are assigned to each next step. 	<ul style="list-style-type: none"> ● "Okay, we've identified five key standards for re-teaching. Let's talk through how long it will take for each, what the bite-sized aims are, and where in your aims sequence you are going to fit that in." ● "For standard 12 assessed on questions 5 and 16, you've identified that as a problem-area that you will reteach. And we have the aim for that day. How will you teach that? Walk me through that mini-lesson?" ● "You mentioned that you need to add in more rigorous inferential questions like the ones they missed. Great. Let's get out your next three lessons and do that right now." ● "So I should see all of these reflected in your revised lesson plans that you will turn in on Friday."
<ul style="list-style-type: none"> ● <i>Guided discovery:</i> Coach narrows in on priority standards/trends and skillfully asks targeted open-ended questions and scaffolded follow-up questions to guide the teacher through the test in hand diagnosis of student misunderstandings and planning of concrete next steps. 	



Data Analysis Form 2014

Class: _____

Assessment: _____

Date: _____

Part 1:

<p>Input Scholars name in the appropriate box and be specific as to what the overall grade is per student.</p> <p>Overall Average:</p>	<p><u>90 or above</u> ex: Susan 93%</p>	<p><u>83- 89</u></p>	<p><u>70-82</u></p>	<p><u>60-69</u></p>	<p><u>59 or below</u></p>
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Part 2: Common Trends: Be specific to common core standards, learning standards and/or skill. Include question number from assessment.

Strengths		Weaknesses	
#	Skill	#	Skill

Part 3: At Risk Scholars: What? So What? What Now? Be specific as to what skills are preventing the scholar to move forward (skills that relate to failing grade) and steps that are being or will be taken to provide the scholar with a chance to improve before the quarter ends, (ex: parent phone call and/or notification has been sent home that scholar is in danger of failing, tutoring has been offered (lunch and/or after school), small group modifications have been altered, preferential seating/group has been changed, extra credit assignment offered.)

Scholar Name	Average	Skills in need of improvement	Next Steps	Additional information or notes

Part 4: Does this analysis result in a re-teach? If so, for the entire class or a small group?

Please check:

Re-teach needed? Yes () No ()

If yes, which scholars will be re-taught? All () small group ()

List names of scholars who will be re-taught in small group:

Provide the date and setting in which re-teach will take place and who will be administrating it (ex: Tuesday, Jan. 17th at 4:15-5:15- Mr. Benson)

Step One – Identify Big Needs:



The first step in Data Driven Planning involves identifying a (tentative) list of instructional priorities, both in terms of topics to re-teach to the whole class and students who are in need of individual or small group assistance. It is also a chance to re-consider small group assignments. All of this requires some big picture analysis. Your initial priorities for re-teach and intervention are usually selected based on these key questions, and a number of analysis tools can help to answer them:

Guiding Questions for Identifying Big Needs

1. What standards or skills are students in the class struggling with the most?
2. Are there any underlying links between these standards or skills?
3. Which individual scholars scored the lowest?
4. What standards or skills have been mastered and may be good candidates for cumulative review? Could these results point to particularly successful lessons or instructional strategies to build upon?
5. Which individual scholars are losing ground or are “stuck” and failing to progress?
6. Are scholars’ persistently struggling when the same standards or skills are assessed over multiple assessments?
7. Are high need areas suggested by the assessment consistent with my own classroom observations and exit tickets over the past 6 weeks?
8. Are there any skills not assessed that are areas of need for scholars?
9. Which standards or skills will be foundational knowledge for the upcoming scope and sequence, or for a scheduled unit of instruction?
10. How does student performance compare to last year’s class on the same assessment(s)?
11. Which skills tested on the upcoming IA tend to be most difficult for scholars?

Step Two – Diagnose Specific Issues:



Once you've identified a tentative list of priority areas for whole class re-teach, review, and specific student interventions, the next step is to dig deeper by analyzing why students struggled and what issues your instruction will have to address. For each re-teach topic, examine student work to assess exactly what their misunderstandings were. For student interventions, identify the specific content that would be the best focus of the intervention time.

Guiding Questions for Diagnosing Specific Issues

1. For each challenging area, what are the primary misunderstandings that kept scholars from mastery?
 - a) Were all the questions testing a particular standard or skill low performing? What CAN scholars do within this standard? Where do they start to struggle?
 - b) What were scholars' common wrong answers, and why? For multiple choice questions, what do the distracter choices tell you about students' thinking?
 - c) Do misunderstandings vary, or are they common to most of the class?
 - d) How did I teach this, and did this contribute to any misunderstandings?
 - e) Are student errors procedural, conceptual, or based on vocabulary?
 - f) Are errors related to any pre-requisite skills that students lacked (e.g. is the math misunderstanding about math, or about reading)?
 - g) For Reading passages, were genre, passage length, or difficulty a factor?
2. For high-performing areas, what about my instruction contributed to mastery?
3. For individual scholars, what are their most pressing challenges? What are their strengths that you can identify and build upon?
4. For small groups, how similar are the learning challenges within the group?
5. Do you have additional hypotheses as to why scholars struggled, based on classroom observations or exit tickets?
6. If scholars performed well in class or homework on this skill, what was new or different about the test items that raised the difficulty level?

Step Three – Plan Instruction:



Armed with insights as to why students struggled in key areas, the last part of data-driven planning involves determining the instructional response that will have the most impact. This includes thinking about what types of lessons and materials are needed, as well as planning when and how much re-teach fits into your schedule over the next 6 weeks. Collaboration with grade-level or subject teams during data day is a good way to identify the most effective instructional next-steps.

Guiding Questions for Planning Instruction

1. How will I break down the issues I've identified into bite-sized Aims?
2. What steps will I take instructionally while modeling or in "think-alouds"?
3. What kind of guided and independent practice would help students most?
4. What kinds of cumulative review or homework would reinforce this area?
5. What kinds of curriculum or lesson materials would help address this?
6. How will my planned instruction target student misunderstandings in ways that previous instruction didn't?
7. Does my coach have any helpful suggestions or resources for teaching this?
8. Who else in my grade level and subject area is dealing with a similar student or instructional challenge? Who has had success in this area?
9. How much time will I allocate to each re-teach area or intervention?
10. When does this re-teach or review topic fit into my instructional calendar? In what weeks or as part of what instructional unit?
11. How can I best budget my time between whole class and small group work, or between multiple small groups?
12. For new interventions, what days and times will I allocate to do this work? If others are responsible for the intervention, how will we coordinate efforts?
13. For ongoing interventions, should I change my time allocation or approach?

Teacher's Name
Grade
Class

Part 1: ASSESS PROGRESS AGAINST GOALS

ASSESS PROGRESS: Take stock of progress versus goals and student performance in context, and reflect on instructional successes and challenges

A. Assess Results versus Goals:
<i>Update whatever BHAG tracker you use with the assessment results for this cycle to check progress against individual student and whole-class goals for the past 6 weeks. How are individual students and the class as a whole progressing towards end of year goals?</i>

B. Reflect on Student Performance in Context
<i>How did your students perform relative to others? How did your students perform relative previous comparable assessments?</i>

C. Reflect on Instructional Successes and Challenges
<i>In light of your results, which instructional strategies or targeted student interventions from the past six weeks do you think were the most successful? Which were the least successful?</i>

Part 2: Plan for re-teach and new standards

RE-TEACH: Prioritize and plan for the challenging standards or skills you will re-teach over the next ___ weeks, or upcoming standards that you predict will be challenging based on analysis of results.
 [*denotes essential element]



WHAT*

What are the most important areas to re-teach to the whole class? Each could be:

- An issue from class observations or exit tickets



WHY*

What's your diagnosis for why students struggled?
 Were the mistakes consistent across the entire class or was there a wide variety of errors?



HOW*

How will you re-teach this to your class?
 What skills will you focus on? What instructional steps or lessons will lead more students to master this than in the past?



PRIORITY

How big a priority is this re-teaching?
 (e.g. a quick hit, 10 minutes of review, a full lesson, etc...)



WHEN

When will this be taught?
 (e.g. which week or part of your AIM calendar?)

WHAT*	WHY*	HOW*	PRIORITY	WHEN

Part 3: Plan for whole-class review

CUMULATIVE REVIEW: Standards the class has mastered to review in order to maintain mastery (~30 minutes or less)

[* denotes essential element]



WHAT*	HOW	WHEN*
What standards or skills are priorities for cumulative review?	How will you review this with your class? <i>(e.g. homework, quick questions, do now, cumulative review, bathroom lines, in-class games, morning breakfast sheets, math meeting, etc...)</i>	When will you do this review? <i>(e.g., which week or incorporate into which scheduled unit from your AIM calendar)</i>

Part 4: Plan individual and small group interventions

INTERVENTIONS: Identify which students or student groups need interventions and how best to prioritize time with them.
[* denotes essential element]

Structured Interventions (formal classes or sessions in place at your school where the curriculum is already established)

Intervention name	Scholars to add to this intervention	Scholars to remove from this intervention

One-on-One Interventions



WHO*	Result	Goal*	WHAT*	HOW	WHEN*
Name of student	Current Score (Or STEP or F&P Level)	Target Score	What standards or skills are the most important to address with this scholar? What are his/her key problem areas?	How will these standards or skills be taught? What instructional techniques and what materials will be used?	When and how often will this intervention occur? Who will lead it?

Small Intervention Group -- ONE



WHO*	Result	Goal*	WHAT*	HOW	WHEN*
Which students will be in the small group?	Current Score	Target Score	What standards or skills are the most important to cover with these scholars during the small group time?	How will these standards or skills be taught? What instructional techniques and what materials will be used?	When and how often will this intervention occur?

Small Intervention Group – TWO



WHO* Which students will be in the small group?	Result Current Score	Goal* Target Score	WHAT* What standards or skills are the most important to cover with these scholars during the small group time?	HOW How will these standards or skills be taught? What instructional techniques and what materials will be used?	WHEN* When and how often will this intervention occur?

OPTIONAL - Example Goal Tracking Template (with mock numbers shown)

	#1		#2		#3		#4		#5		State Exam	
	Goal	Result	Goal	Result	Goal	Result	Goal	Result	Goal	Result	Goal	Result
Whole-Class	65%	58%	65%								n/a	
Average Score for the whole class												
# of Scholars achieving minimum benchmark	15 scholars yellow or green	11	15								ALL 21 scholars Proficient	
# of Scholars achieving ambitious benchmark	6 scholars in the green	2	6								At least 7 scholars Advanced	
Individuals												
Karma	50%	60%	70%								Proficient	
Keith	50%	40%	60%								Proficient	