

Ensuring the Implementation of a Rigorous Curriculum in Every Classroom

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Prepared by the Georgia Leadership Institute for School Improvement for the Principal Professional Learning Community, as part of the Wallace Foundation's Principal Pipeline.





Over a decade of research on school leadership, with more than 70 research reports and other publications, has helped The Wallace Foundation figure out what makes an effective principal. In short, their studies show that effective principals perform five practices well to improve learning for all students:

- Shaping a vision of academic success;
- Creating a climate hospitable to education;
- Cultivating leadership in others;
- Improving instruction; and
- Managing people, data and processes to foster school improvement.

THE WALLACE FOUNDATION'S PRINCIPAL PROFESSIONAL LEARNING COMMUNITY IS COMPRISED OF PRINCIPALS WHO FOCUS ON CONTINUOUSLY IMPROVING THEIR PERFORMANCE ACROSS THESE FIVE PRACTICES. THIS DOCUMENT IS RELATED TO THE PRACTICE OF "IMPROVING INSTRUCTION", AND IS FOCUSED MORE SPECIFICALLY ON "ENSURING THE IMPLEMENTATION OF A RIGOROUS CURRICULUM". PARTICIPANTS IN THIS WORK GROUP ARE PRINCIPALS FOCUSED ON THE ISSUE OF RIGOR IN THEIR SCHOOLS.

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This document is a compilation of thirteen effective strategies, identified by principals for principals, designed to ensure the implementation of a rigorous curriculum in every classroom, for every child. This resource was prepared as part of a Principal Professional Learning Community (PLC), with support from The Wallace Foundation. The following principals were members of the PLC, as well as contributing authors to the sections listed with their names:

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¹ The mission of Georgia Leadership Institute for School Improvement (GLISI) is to develop world-class education leadership who advance student achievement and organizational effectiveness. Learn more at **www.glisi.org**.



Introduction

What makes curriculum rigorous for every child? How can principals ensure the implementation of a rigorous curriculum in every classroom?

hese are the questions that school leaders participating in the Wallace Foundation's Principal Pipeline Initiative, Project Group 4, have worked to answer. In the beginning, our group spent time generating a common understanding of the term "rigorous". How do we know rigorous content is being delivered? How do we know that rigorous instruction is being implemented with fidelity throughout a school building? How do we know that assessments are appropriately rigorous? Who decides what constitutes "rigor" for every individual child?

Ultimately, our professional learning community (PLC) agreed that while there may not be a single answer to these questions that is generalizable across all school contexts, there are certainly some common characteristics. Rigorous curriculum is **demanding** curriculum that is **aligned with common standards**, but also **accommodating** of the needs of individual learners. Implementation is the task of teachers and school leaders, who should be **uncompromising** in their pursuit of helping *all* children

learn, and who should share a **laser like focus** on delivering **high-quality** instruction. A school culture focused on "rigor" is one that is focused on "**challenge**"-challenging students to reach their fullest potential, challenging teachers to deliver high-quality instruction, and challenging school leaders to promote a culture that breeds excellence. Building this culture requires a deep connection with partners outside the school building—including district leaders, community members, and business partners. Therefore, a critical role that principals play is a culture-building role, as they work to establish shared understanding and clear expectations around rigor.

By working and learning from one another, Project Group 4 has surfaced a number of strategies and resources that we have found useful in our own efforts to build a culture focused on the implementation of a rigorous curriculum in every classroom. This resource represents the culmination of Project Group 4's shared learning on this topic. Members of our professional learning community identified



thirteen strategies that we believe to be critical for ensuring the implementation of a rigorous curriculum in every classroom. These strategies are organized within a Plan, Do, Check, Act (PDCA) framework, referred to throughout as "The Rigor Cycle" (p. 8). Therefore, this resource is organized in a similar fashion—it highlights strategies to Plan for the implementation of a rigorous curriculum; Do the hard work of guiding the implementation; Check that the initiatives implemented are effective; and Act to revise, reshape, or reroute actions and resources towards pathways for instructional improvement. Within each section, there are examples, resources, and tools aligned with the four sections of The Rigor Cycle. Our hope is that these resources and tools will be of use to school leaders outside of our learning community as they work to ensure the implementation of a rigorous curriculum in their own schools.

We also view this resource as a starting point. Our PLC has discussed the value of an online resource that would house similar resources to those referenced here, but could be built upon by the broader community of principals dedicated to increasing rigor in schools nationwide. For now, this resource represents the culmination of our group's shared learning to this point. We hope it is of value to others, and invite the broader community of education leaders to consider their own strategies, examples, resources, and tools for ensuring the implementation of a rigorous curriculum in *every* classroom, for *every* child.

A Rigor Cycle

THE RIGOR CYCLE: a summative graphic of effective strategies



A Rigor Success Story

was absolutely elated when I received the news on July 7th, 2014 that I was going to be the new principal of Morehead STEM Academy. For several years, Morehead STEM Academy has been one of the highest performing schools within the Charlotte-Mecklenburg school district. Since 2009, Morehead STEM Academy has been the district's only full countywide magnet, specializing in science, technology, engineering, and mathematics for students in kindergarten through eighth grade. I knew that I had big shoes to fill and I was up to the challenge. As I began the process in mid-July of meeting the staff and getting their thoughts regarding things that were working well and also areas for improvement, the issue of "rigor" arose in almost every conversation. It was very clear that the staff believed that in order for Morehead STEM Academy to continue academic achievement at the highest levels, the new principal had to place a premium and "set the tone" regarding rigor. I was also able to gather through my meetings with staff that at the end of the 2013-2014 school year, the staff responded unanimously via surveys that they needed more professional development in the area of rigor.

To my delight, some staff had already decided to voluntarily attend professional development offered during the summer on providing opportunities for challenge and critical thinking more consistently in the classroom. Prior to my arrival, the academic coaches and facilitators had already completed the professional development plan for the school year that highlighted rigor as an area of focus on a monthly basis. The staff

wanted to dedicate more weekly planning time to discuss the needs of individual students and use student work samples and rubrics as a basis of determining below, at, and above grade level performance. The more that was shared with me through my dialogue with staff, the more I began to realize that they fully understood their responsibility in delivering a rigorous curriculum and, in so doing, ensuring that all students are college and career ready.

Having served in the role of principal at Morehead STEM Academy now for almost 6 months, I would say that the word "intentional" best describes our school's efforts around rigor. While the grade level academic coaches and administrators facilitate conversation and discussion regarding the standards, the larger emphasis

know that when I come into a classroom one of the questions that I'm going to ask them is, "How is this assignment making you think?" I want the students to know that we value what they think, and we value their learning. At the end of the day, we want every student in our building to be successful. Our staff believes that it is our responsibility to create the structures of support that assist students along the continuum of rigor and provide individual students with appropriate levels of challenge. This ensures that the learning environment is student centered and learning is personalized for all students.

I feel extremely proud of the staff at Morehead STEM Academy, who have fully embraced and embodied the notion of rigor. Our teachers truly understand that our own



...students are as much apart of the conversations regarding rigor as are the teachers.

is placed on resources needed for students to be appropriately challenged at their level. Students are provided opportunities to demonstrate their understanding in a variety of ways. Teachers are cognizant of using authentic measures of assessment to gauge students' progress towards mastery. Perhaps the most exciting: students are as much apart of the conversations regarding rigor as are the teachers. Students are encouraged to "have a say" in their own learning at Morehead STEM Academy and giving feedback regarding the challenge and critical thinking required in an assignment is a great way to show that. Students

definition of rigor in our building is constantly evolving as we continue on this journey of preparing students to be collaborators, effective communicators, and highly creative critical thinkers. We are taking the deliberate steps to hold ourselves accountable for this work that is challenging every student, everyday, to achieve their personable best. We reinforce the idea that "personal best" is an ever-evolving, ever-changing concept as students grow and learn. We affectionately refer to this as "The Morehead Way"!

- PRINCIPAL KEVIN WOODS, Morehead Academy



The Rigor Cycle stage 1: PLAN

It has been said that "failing to plan is planning to fail." In order for education leaders to reflect on the level of rigor needed to ensure that all students are able to reach their fullest potential, it must be planned for at all levels. Our PLC identified four strategies all aligned to the planning stage:

- 1 Establish common understanding
- 2 Set Goals/Expectations

- 3 Calibrate resources to expectations
- 4 Determine necessary supports

EACH OF THESE STRATEGIES ARE EXPLORED MORE FULLY BELOW.

1 Establish Common Understanding

Just as our own professional learning community began by identifying what "rigor" means to them, so too must education leaders establish a common understanding of rigor within their own communities. As the instructional leader of the building, it is the principal's responsibility to create an environment where a common understanding can be achieved. Doing so at the outset is critical for the future success of any initiative aimed at ensuring the implementation of a rigorous curriculum. Without a common language and lens for discussing and observing rigor, it is unlikely the school team will be able to achieve favorable outcomes.

Our professional learning community shared several approaches to establishing a common understanding that have been effective in their own schools. One approach is to facilitate a session with teachers where they can observe videos and discuss evidence of rigor in the classroom. What are they seeing, hearing, and sensing that are indicators of challenging curriculum and instruction for all learners?² An alternative approach is to develop a collaborative definition of rigor that is research-informed and based on the collective knowledge of leaders within the school community. The process of working collaboratively to develop a definition helps to generate buy-in and builds shared understanding and meaning³.

At Walker Middle Magnet School in Hillsborough County, Florida, Principal Anthony P. Jones has hosted sessions during pre-planning periods to align the school community's understanding of rigor with data that illuminates the needs of children within the school. Principal Jones utilized a needs assessment survey and asked all teachers to self-assess the areas where they needed support. These self-assessments were informed by the district's evaluation rubric. The results were cross-walked with observation data from the previous year, and were collectively used to develop a plan for teachers' professional development. By including teachers in the process, the connection between their personal professional development and the objective of ensuring the implementation of a rigorous curriculum for every child in every classroom was made clearer for teachers.

2

Set Goals/Expectations

If a school community simply establishes a common understanding of what it means to implement a rigorous curriculum but takes no further action, they will have accomplished nothing more than crafting a definition of rigor. The community's shared understanding should inform the goals and expectations that are established. It is critical that teacher, school, and district leaders participate in the goal setting process. If team members don't know where they should be headed, they could be headed anywhere. For members of our PLC, collaborative goal setting typically is accomplished through a process that includes reflection, data review, and resource review. Specific resources that have informed their own efforts to collaboratively establish goals and expectations include: (1) college and career readiness indicators; (2) data on the student population being served; and (3) district, state, or national curriculum and instruction standards.



Calibrate Resources to Expectations

Efforts in schools to plan for the implementation of rigor in every classroom can seem untenable in the absence of resources. School and district leaders play a critical role in ensuring that teachers have enough of the right resources to meet expectations. The right resources are simply those that support the goals identified by the school community. What resources do teachers need to move from "covering the curriculum" to "facilitating learning for every child"? Answering this question, and then calibrating school resources to expectations and goals is the next step in planning for implementation.

Members of our PLC recommend employing a Backward Design approach (Wiggins & McTighe, 1998) approach to calibration efforts. Figure 2 (pg. 13) is a visual representation of this process, where you start by reviewing the desired results and work backwards to identify the resources required to get there.

² Members of our PLC recommend **Teachscape.com** and **Teachboost.com** — websites with videos and tools for reflecting and collaborating on curriculum and instruction.

Members of our PLC recommend the use of the "Rigor Quick Check", which can be useful in developing a common understanding of rigor as it relates to content, instruction, and assessment. This checklist can be found in Figure 1.

Figure 1: The Rigor Quick Check

CONTENT

- Is the content aligned with district/state standards?
- Does it include basic skills and important concepts?
- Does the content require students to apply core academic knowledge to problem-solving?

INSTRUCTION

- Does the instruction require students to engage in higher-order thinking?
- Are students required to engage in elaborated communication?
- Do they have to explain or justify their conclusions or thinking?

ASSESSMENT

- Is the assessment aligned to the lesson goals?
- Does the assessment measure standards-based content?
- Do students have to use higher order thinking skills on the assessment?
- Do students have to explain or justify their conclusions or thinking?



Determine Necessary Supports

It is important to determine what is required to foster a collaborative culture around the goal of implementing rigorous curriculum in every classroom. If teachers do not feel supported in the process, they are less likely to engage at the maximum level. Principals should be intentional about structuring time in the school day to support teachers.

A variety of supports were discussed within our PLC that have been implemented in various school contexts. Some supports that principals have found to be effective in their own schools include:

- Peer support teams
- Principal facilitated goal-setting/goal-review sessions
- Principal facilitated data review sessions to develop shared understanding of the needs of incoming students
- Professional learning communities (PLCs) designed to support instructional and curriculum improvement efforts

Figure 2. Backward Design Process⁴



As Anthony P. Jones, Principal at Walker Middle Magnet School in Hillsborough, County attests, "developing a 'deliberately developmental culture'—one where teachers and principals are intentional about helping other teachers to thrive—is critical to ensuring that teachers feel supported *and* that rigorous curriculum is being implemented with fidelity throughout the school building. The best practice in planning for rigor is teachers helping other teachers."



REFLECTION GUIDE

- What actions have you taken to ensure that the administrative team, as well as the broader school community, has a shared understanding of rigor? What evidence do you have that your actions have contributed to this shared understanding?
- How have you engaged with your school community to establish common goals and expectations around rigor? What specific resources have you employed to help establish common goals and expectations?
- How might the Backward Design approach in Figure 2 be useful in your own school context to calibrate resources to expectations?
- Review the examples of supports on page 12. Reflect on whether these supports or others could be effective in your own school context. What steps would be required to implement the support structures you've identified?

⁴ This visual builds upon the three stages of backward design identified by Grant Wiggins and Jay McTighe (1998). A summary of the relationship between this process and curriculum design has been prepared by Dr. Ellen B. Meier, Teachers College, Columbia University, and can be accessed here: http://edtech4schools.pbworks.com/f/Understanding%20by%20Design%20Teaching%20Ellen%20Meier%20CTSC.pdf.



The Rigor Cycle stage 2: DO

The second stage of The Rigor Cycle is "Do". This stage identifies three essential actions that school leaders can take to ensure the implementation of a rigorous curriculum in every classroom, for every child.

- 1 Collect Data
- 2 Provide Feedback
- 3 Delivery Resources/Establish Support Structures

As the chief instructional leader in the school building, the principal's role in implementation involves (1) collecting data; (2) providing frequent, actionable feedback to teachers; and (3) ensuring that the support structures that were identified in the "planning" stage are provided. Data must be collected to ensure that the curriculum and delivery of curriculum in the classroom is aligned with the previously established expectations and goals for rigor in the classroom. Providing feedback that is immediate, frequent, and actionable is also critical, because teachers can course correct in advance of an annual evaluation. Finally, delivering the support and resources teachers require to be effective is paramount. These core actions are reviewed in more detail below.

Collect Data

Data collection is the most important component of this phase of The Rigor Cycle because many of the effective

strategies we identify later are based on the presence of data. It is the responsibility of the principal to identify data that allows the school community to determine if the standards they've agreed to for curriculum and instruction are actually being achieved.

Members of our PLC identified a number of data sources that we have collected for the purpose of collaborative analysis with their school communities. Shawn Hintz, Principal of Mt. Rainer Elementary in Prince George's County, and Toni Ferguson, Principal of Knight Elementary in Gwinnett County Public Schools, believe that the richest data sets include both qualitative and quantitative data sources. One method for collecting quantitative data is to utilize a "rigor rubric"—one that allows users to score the level of rigor within a classroom based on their observations. This can help teachers understand where they are on the spectrum and give them a point of reference for comparing the level of rigor within their own classrooms to others. One

method for collecting qualitative data would be to simply record observations of student work, curriculum delivery, etc. in text, video, or recorder form.

Principal Nicolette Grant at Collinswood Language Academy emphasizes the importance of capturing student reflections in the data collection process. In her tenure, Principal Grant has observed gaps between staff perceptions of rigor and student perceptions of rigor. Specific questions Grant has utilized to solicit student reflections include:

- · Did this lesson challenge you? How?
- Did this assignment teach you something new?
 If so, what?
- Can you apply the skill/knowledge you learned in another setting?
- Was the topic interesting/relevant to you?
- Were you provided opportunities to utilize technology, choice, or creativity?
- What suggestions do you have to improve this lesson/ activity for other students?

When collecting any data, it is important that the principals try and remain as objective as possible. If preference or bias creep in, the credibility of the data is weakened. Our professional learning community identified several tools to ensure consistency in data collection. One free tool that Principal Hintz and Principal Ferguson have utilized is Google Forms. They have identified "look-fors" for the data collection process, used Google Forms to record observations, and then shared those observations immediately with teachers in their schools.

Whatever data collection methods principals employ, Principal Hintz and Ferguson believe, "It is essential that the collection methods allow leaders to record comments and observations. This provides the teacher with specific examples of what was observed to inform feedback, and also provides rich enough data for deep analysis."⁵ For example, implementing grade level observation/ walkthrough cycles would provide a structure for an administrator or teacher leader to support a specific grade level. The administrator or teacher leader would attend the grade level's collaborative planning sessions, complete brief observation with written feedback, and give reflective feedback

Provide Feedback

As the chief instructional leader, principals play a vital role in ensuring that every child is reaching their fullest potential in the classroom. How principals provide feedback and the type of feedback they provide to their school community can have a profound effect on whether or not the expectations for rigor are upheld and the shared goals for rigor are achieved.

Our professional learning community discussed a variety of methods for providing feedback that we have found to be successful in their own schools. One example is the use of videotaping for data collection, followed by a session where principals or peer reviewers ask questions designed to help improve practice. Other examples that our PLC has utilized include the use of exemplars to compare/contrast with observations, or the use of the "Teacher Challenge", where administrators or peers focus on a specific aspect of the curriculum or instruction and issue a "challenge" for improvement. Teachers can accept the challenge by making a verbal or written commitment—which helps to reinforce the idea that every teacher is accountable to improving rigor in their classrooms.

Members of our PLC have found that question stems and reflective conversation protocols can be extremely helpful in guiding any feedback session⁷. We also believe that including fellow teachers in the feedback process is a useful strategy for implementing this effective practice. Principal Ferguson finds that, "the use of peer reviews allows teachers to support one another by discussing and sharing their wonderings and personal experiences as fellow teachers. It also helps teachers take ownership of the goals and expectations established in the planning stage, and reinforces the school community's shared understanding; goals; and expectations for rigor in the classroom."

Deliver Resources/Establish Support Structures

The resources and support structures that the school community identified as essential for goal achievement in the planning stage should be delivered in this stage of The Rigor Cycle, along with any other resources or supports that may not have been anticipated, but are later found to be important. These resources and supports can include books, technology, protocols, forms, structural/ organizational changes, etc. While the resources and support structures delivered will be dependent on each unique context, members of our PLC identified several resources and support structures that we recommend for others. First, we recommend two books that we have found useful on the journey towards implementing a rigorous curriculum in every classroom: (1) *The Artisan Teacher: A Field*

Guide to Skillful Teaching (Rutherford, 2013), and (2) Building Teachers' Capacity for Success (Hall & Simeral, 2008). Both of these resources provide instructional leaders dialogue tools to identify teacher strengths; provide coaching protocols to improve teacher practice; and develop teacher leaders. Principal Ferguson is currently facilitating a book study with teacher leaders in her building using Building Teachers' Capacity for Success. Ferguson shared that, "the study is providing an excellent forum for our staff to discuss the major take-aways for our own building, and implications for improving current instructional practice."

Members of our PLC have also found utility in professional learning communities, because these team-based structures encourage collaboration and provide safe spaces for members to share, challenge, reflect, and grow.

The guiding questions and conversation starters in the figure below provide some examples of how school leaders can begin to support and collaborate with teacher leaders to improve the level of rigor in their classrooms.

Figure 3: Guiding Questions And Reflective Conversation Starters

The following guiding questions were shared by Nicolette Grant, Principal of Collinswood Language Academy in Charlotte-Mecklenburg Schools.

- 1 What new learning did this lesson provide your students?
- 2 As a teacher, what did you learn about your students, your content and/or your strategies from this lesson?
- 3 How do you know that every student is able to apply the skill in alternate settings?
- 4 What thinking was involved in the lesson? Was the thinking done by the teacher or the students?

- 5 What reading, writing, and speaking skills were required during the lesson?
- 6 Did you expose your students to a variety of texts? Were the texts complex (thoughts, concepts, and/or vocabulary)?
- 7 Was a reflection piece included to assess understanding?
- 8 Were your students authentically engaged or compliantly engaged?

RE

REFLECTION GUIDE

- What are the sources of data that you rely upon most heavily to determine if rigorous curriculum is being implemented with fidelity? Do any of these data sources allow for student voice?
- What feedback are you providing to teachers and assistant principals around the topic of rigor? What are the methods you employ to deliver that feedback?
- What policies, processes, and structures have you put in place to encourage collaboration, reflection, and growth around the topic of rigor?
- ⁵ Data analysis is discussed in The Rigor Cycle Stage 3: Check section.
- ⁶ In many districts, videotaping requires teacher consent and voluntary participation. Appendix a provides a guide for using video recordings to provide teachers with immediate, actionable feedback.
- ⁷ Guiding questions and reflective conversation starters can be found in Figure 3.



The Rigor Cycle stage 3: CHECK

The next set of effective strategies are all related to checking or monitoring progress towards the goals identified in the planning stage.

Members of our PLC emphasized the importance of assessment to hold themselves and others accountable to the standards and expectations designed to increase the rigor of curriculum and instruction. The three strategies identified here allow a school leader to work with the school community to determine if their actions yielded results. These strategies include:

- ① Collaboratively analyze data with school stakeholders
- 2 Evaluating the effectiveness of feedback provided in Stage 2 of The Rigor Cycle
- 3 Evaluating the effectiveness of the resources and supports provided in Stage 2 of The Rigor Cycle

THESE STRATEGIES ARE FURTHER EXPLAINED BELOW.

At, P.S. 154 in Queens, NY, Principal Tara Davidson is working to build a data-driven culture where data analysis is built into the fabric of day-to-day activities for teacher and school leaders. Principal Davidson has worked with elementary teachers in her school on a review of curriculum plans—a process that has been a learning opportunity for both her and her staff. Principal Davidson facilitated a session where teachers reviewed and revised their curriculum maps to identify opportunities to introduce more rigorous thinking and learning opportunities for students. Davidson made use of Hess' Cognitive Rigor Matrix, as well a checklist her team developed in the Planning stage of The Rigor Cycle to identify the places on their maps that met expectations and places where revisions should be made. Teachers worked collaboratively to identify areas where maps could be improved. Davidson has built upon this learning to challenge teachers to think about the individual learning needs of traditionally underperforming subgroups to consider if any further modifications need to be made to student tasks. Davidson believes it is critical for the school leader to be involved in activities like these because you can provide valuable data and examples to inform the conversation; you can model high-quality coaching and reflection; and you can monitor the feedback teachers provide to one another.

1 Analyze Data

It is impossible to develop a data-informed culture focused on continuous improvement without devoting time, energy, and resources to the analysis of data collected in Stage 2 of The Rigor Cycle. While some data can be used to provide immediate feedback to teachers, other data may require deeper analysis in order to surface gaps between expectations of rigor and results achieved, as well as identification of the root causes for these gaps. Reviewing multiple data sources in teams of teachers can help reinforce the common understanding that the school community established during the "planning phase". Setting parameters for the review with tools or rubrics aligned to expectations also helps to keep collaborative analysis efforts focused⁸.

There are many types of data that may inform collaborative analysis efforts. A sampling of data analyses that members of our PLC have found useful are outlined in Table 1. The findings from any of these data analysis activities may reveal opportunities to modify curriculum, instruction, tasks, or assessments to meet the standards/expectations for rigor set in Stage 1.

There are more resources and tools to support data analysis efforts than can be mentioned here. One example that several members of our PLC have found useful is The Data Driven Dialogue protocol from the School Reform Initiative. This tool is useful for promoting and facilitating dialogue about data⁹.

Table 1. Data Sources and Relationship to Checking for Rigor

Data Analysis Activity	Relationship to Checking for Rigor
Student work sample analysis from all grade levels, aligned to a specific standard	Allows analyzers to determine the level of vertical alignment in student work. Findings may reveal opportunities to modify curriculum or instruction in particular grades or classrooms to meet the standards/expectations for rigor set in Stage 1.
Analysis of student performance on tasks and assessments	Allows analyzers to gauge how individual students' comprehension is shifting from task to formative to summative assessment.
Student writing sample analysis	Allows analyzers to assess text complexity and the use of text-based evidence in students' writing.
Task review by student type	Allows analyzers to determine the level of access for all students to the task.
Review of curriculum plans	Allows analyzers to identify specific evidence of alignment between plan and the expectations for rigor set in Stage 1.

2 Evaluate Feedback Effectiveness

The majority of states have significantly altered teacher evaluation systems in the past six years as part of state and federal reform initiatives designed to improve teacher practice and increase student achievement (Rucinski & Diersing, 2014). These reforms require school leaders to earn certification in teacher evaluation procedures and to provide high-quality, frequent feedback on teaching pedagogy and practice. Members of our PLC shared how these reforms have affected their own practice—namely that there is a greater importance and sense of urgency for ensuring that all teachers and leaders in their buildings have a shared understanding of the expectations around rigor and that they can articulate the specific changes in their own practice to meet or exceed shared expectations

for student learning. This understanding needs to be reinforced by feedback provided by the school leader. While there are some variables outside of a principal's control that can influence feedback effectiveness, there are several factors that school leaders can influence including the content of the feedback, the method of delivery, and the opportunities for collaboration built-in to feedback sessions. It is important that principals take time to reflect on how the feedback they provide can be altered to maximize its effectiveness for every teacher and school leader. Leaders should make an effort to determine which leverage point will cause a change in thinking and will lead to an intentional shift in instructional practice.

Members of our PLC have found individual teacher conferences to be an effective method of feedback delivery. As Helda Morad, Principal at Thomas S. Stone Elementary School in Prince George's County Public Schools explains, "Individual teacher conferences can be used to collaboratively discuss results achieved and to create an action plan for ensuring the implementation of a rigorous curriculum in every teacher's classroom. Not only are individual conferences a way to work one-on-one with your teaching staff and deepen relationships, results from those sessions provide data points for school leader teams to analyze at a later date. When the results of a number of individual sessions are collectively reviewed, school leaders can identify opportunities for professional development that will meet the collective needs of teachers and staff."

Principal Morad has found that videotaping has enhanced the effectiveness of her feedback. Teachers have stated that the use of this technology allows them to more deeply reflect on their practice because they can see their own actions on screen, as opposed to only being able to reflect on written feedback. Video allows teachers to see what others see—and serves as a useful reference point for individual conferences. Teachers and school leaders at Thomas Stone have been able to view videos together, collaboratively analyze and assess what they see, and identify next steps and additional supports that may be needed to ensure the implementation of a rigorous curriculum in every classroom, for every child.

3

Evaluate Resource/Support Effectiveness

In the same way that principals should self-reflect on the effectiveness of the feedback they provide, it is also important to evaluate the resources and support structures that are in place to ensure the implementation of a rigorous curriculum in every classroom. Evaluating the effectiveness of resources and supports is not the sole responsibility of the school leader—but the responsibility of all members of the school community. Therefore, school leaders should

actively solicit feedback from teachers, support staff, parents, students, and other stakeholders to ensure that the right resources and supports are in place to achieve the intended outcomes. Reviewing the effectiveness of supports and resources on a regular basis can help prevent resource or support droughts which could negatively affect improvement efforts.

Kirsten Frassanito, Principal of Sabin World Elementary School in Denver, Colorado, recently discovered through a resource and support evaluation that school stakeholders felt there was an opportunity to develop more personalized learning opportunities for students and teachers. Based on this evaluation, Principal Frassanito is in the process of launching personalized competency based learning pathways for both teachers and students, as well as building proficiency scales for all essential learning goals. Her hope is that by providing resources and supports designed to personalize learning, student agency will be increased and the level of rigor in the classroom will be improved for each individual learner.



REFLECTION GUIDE

- · What actions have you taken to ensure that data analysis is a collaborative effort in your school community?
- How effective is the feedback you are providing to teachers and assistant principals around the topic of rigor? What changes in
 practice have you observed that have been in response to the feedback you've provided?
- How have you engaged the broader school community in evaluating the structural supports you currently have in place for ensuring the successful implementation of a rigorous curriculum?
- ⁸ An example of a matrix that members of our PLC have used to guide analyses of student task data is Hess' Cognitive Rigor Matrix, which can be accessed here: http://www.nciea.org/publications/CRM_ELA_KH11.pdf.
- ⁹ This protocol can be accessed at http://www.schoolreforminitiative.org/doc/data_driven_dialogue.pdf



The Rigor Cycle stage 4: ACT

The final stage of The Rigor Cycle is "Act". This stage highlights three critical practices of school leaders which can help "right the ship" if actions, resources, or supports have not achieved their intended results. These practices include:

- 1 Review Data Analysis/Evaluation Results
- 2 Determine Course Corrections
- (3) Execute Course Corrections

EACH OF THESE STRATEGIES ARE REVIEWED IN MORE DETAIL BELOW.

1 Review Results of Data Analysis and Evaluations

While each of the individual data analyses and evaluations conducted in Stage 3 offer insights into the level of rigor being implemented and supported within the school, it is important to not review these data points in strictly a piece-meal fashion, but to also use them comprehensively to evaluate overall progress towards the goals identified in the planning stage. A comprehensive review and analysis of multiple data sources (formative, summative, observations, writing reflections, class discussions, notes from conferring, etc.) provide valuable insights about a students' understanding of the content, progress towards desired outcomes, and the possible misconceptions about learning goals.

Paul Rotondo, Principal of Cascades High School in New York City, suggests the use of a school reflection protocol to engage all stakeholders in a comprehensive review. By using a protocol to guide the review, Principal Rotondo argues that it is possible to generate more (and better) strategies for course corrections than a leader could generate in isolation. It also allows the principal to simultaneously generate buy-in for any reforms or changes that are required. Appendix B provides an example of a protocol Rotondo has used in his own practice to review the progress his own school community has made in their efforts to increase the level of rigor in his building.

Determine Course Corrections

The results of a comprehensive review like the one described above can guide school leaders' selection of necessary course corrections. Developing a school culture that embraces the notion of continuous improvement requires a school leader to involve all school stakeholders in this process. One useful strategy for determining course corrections is "root cause analysis"—a process that assists teams in identifying the underlying factors or causes of an adverse event. In this instance, understanding the contributing factors to a lack of rigor in every classroom can help develop the actions required to sustain corrections¹⁰.

Members of our PLC have made use of a cause and effect diagram to support their efforts to determine course corrections. Sometimes called a "fishbone diagram", this tool provides a visual way of looking at cause and effect¹¹. It also guards against "solution hopping", and forces school

stakeholders to explore the underlying issues behind a problem—which typically leads to more robust solutions.

When considering course corrections, administrators or coaches should carefully guide teachers to reflect on their need to gain a deeper understanding of the curriculum; to spend more time getting to know the unique learning styles of their students; to determine the most appropriate research-based strategies to model and facilitate learning; and/or how to adapt instruction to actively engage students in meaningful real world applications. In executing the course, teachers need to also reflect on what support specialist (facilitators, Exceptional Children's Teachers, Gifted Teachers, and/or master teachers within the building) are available to assist them with the design and implementation of their lessons to ensure rigor of thinking and work product are provided for all learners.

The administrative team at Collinswood Language Academy, led by Principal Nicolette Grant, have found great utility in a vertical articulation and alignment graphic organizer, designed to help teachers reflect on the level of rigor in their lessons. Teachers in grades K-8 used the tool collaboratively to study and reflect upon evidence of mastery in a Common Core strand. Within that strand, teachers discussed the meaning of the standard, the essential learning question to guide the unit, the differentiated and leveled guiding questions within each lesson, content vocabulary and Tier 2 Vocabulary needed to engage students in meaningful discussions, the intentional teaching strategy to employ, what Thinking Map could help students frame their thinking, and what work products could allow for student choice and rigor. As teachers discussed, analyzed, and reflected on the level of rigor throughout the grades levels, they began to notice that some of the tasks they were using were identical to those of lower grades. Instead of being told by administrators that more rigorous products should be designed for higher grade levels, teachers were able to discover it on their own by engaging in professional vertical discussions with their colleagues. Teachers were also able to share tasks that could be modified for struggling learners, second language learners, and to support advanced learners. This vertical team PLC also opened the dialogue to sharing instructional resources, text, technology tools, and even became a catalyst for co-teaching opportunities.

REFLECTION GUIDE

- What changes could you make **today** to improve the supports and resources available to your staff? How would those changes positively affect your efforts to ensure the implementation of a rigorous curriculum?
- In what ways might you be able to leverage the **School Reflection Protocol and Worksheet** (Appendix B) to facilitate a discussion of your school's goals around rigor? How could the results of that session be used to inform an improvement plan?

¹⁰ See Figure 3 for examples of guiding questions that can assist teachers with self-reflection.

¹¹ A blank fishbone template can be found here: http://timvandevall.com/fishbone-diagram-template/. Suggested categories for identifying causes in a school context include: instruction, curriculum, leadership, structures, etc.



3 Execute Course Corrections

Once a plan for refinement has been created, it is time to execute. Many of the strategies outlined in Stage 2 of The Rigor Cycle are applicable here as well—the role of a school leader in execution is to provide supports, resources, and feedback to ensure that course corrections achieve their

intended results. Nicolette Grant, Principal of Collinswood Language Academy in Charlotte-Mecklenburg Schools, suggests three books that provide excellent learning opportunities for principals engaged in this stage of The Rigor Cycle:

1 Leverage Leadership (Bambrick-Santoyo, 2012). This book can assist principals with course corrections related to structural improvements (e.g. implementing PLCs), and improvements in their own practice (e.g. implementing more effective walk-throughs; facilitating effective conferences with teachers; etc.).

2 Evocative Coaching: Transforming Schools One Conversation at a Time (Tschannen-Moran, B., & Tschannen-Moran, M., 2010). This book provides research-based strategies to facilitate meaningful dialogue to support the professional growth and reflective practices of teachers. To the extent that course corrections need to occur in the individual practice of teachers, this book provides principals with the tools required to produce outstanding collegial relationships so that the feedback they provide is translated into academic success for students.

3 Never Underestimate Your Teachers: Instructional Leadership for Excellence in Every Classroom (Jackson, 2013). This book provides principals useful tools for identifying the root cause of instructional issues. Not only does the book provide tools to help leaders determine if the area for required course correction is a teacher's skill (content or strategies) or will (motivation to improve), the book also provides useful strategies to help principals execute course corrections—providing resources to help them become better coaches and supports for teachers.



Conclusion



"Only by creating a culture of high expectations and providing support so students can truly succeed do you have a rigorous classroom"

-Barbara Blackburn, 2008

The thirteen effective strategies compiled in this resource are united by more than just The Rigor Cycle (pg 8). Common themes emerge across the strategies that transcend the four stages of Plan, Do, Check, and Act. The first is the emphasis on collaboration and community buy-in. Principals in our PLC agree that it is difficult—if not impossible—to ensure the implementation of a rigorous curriculum in every classroom absent a shared understanding of rigor; community-wide planning; shared action plans; collaborative impact checks in order to implement course corrections; and sustained buy-in across school stakeholder groups. As one member shared, "If I had it to do over again, I would start my first year principalship with a lot less of my own plan for rigor, and instead work collaboratively with my teacher leaders, parents, support staff, and community members to implement many of the strategies identified here."

A second theme is that **The Rigor Cycle is continuous**. All of the stories shared by members of our PLC highlight examples of revisiting plans; making course corrections based on collaborative data analysis; and taking action to modify curriculum to meet the needs of students. As student needs evolve, so too must our efforts to ensure the implementation of a rigorous curriculum.

Finally, the strategies are united by an **emphasis on data**. Principals in this PLC focused on the power of data

to inform all stages of The Rigor Cycle, and underscored the importance of using multiple data points, analytical techniques, and low-inference strategies to avoid solution jumping.

Taken together, the strategies, examples, and tools referenced in this resource are a **powerful roadmap** for school leaders interested in ensuring the implementation of a rigorous curriculum in every classroom, for every child. Members of our PLC have identified a variety of uses and audiences for this resource including:

- · A tool to support the self-reflection of school leaders;
- A professional development resource for Aspiring Leaders and Assistant Principals, to be used in conjunction with follow-up dialogue and reflection;
- A resource for administrative teams to read and discuss together as they develop shared understandings of rigor; and
- A tool to guide discussions with teachers, support staff, and other school stakeholders about the importance of rigor.

Our hope is that this resource can be leveraged in numerous ways across a variety of audiences as educators work collaboratively to continuously improve the educational opportunities available to all students.

Appendix A: Videotaping Protocol

Process:

- 1. Record approximately 10-15 minutes of a teacher's lesson. This recording may be unannounced or planned ahead. If announced, the recorder and teacher may agree on the most beneficial time to videotape.
- 2. Specifically look for evidence that allows the observer and teacher to analyze the level of rigor in questioning and student cognitive engagement.
- 3. Use probing questions to encourage teachers to self-reflect on the level of rigor he or she is observing on the recording. These questions and the video recording can be emailed to the teacher so he or she has a day or two to self-reflect before a face to face collaboration session¹³.
- 4. Work collaboratively with the teacher in a face-to-face session to identify opportunities for improvement that will enhance the learning opportunities and level of engagement for each student in the classroom.

By reviewing the tape, reflecting, and engaging in collaborative dialogue with the school leader or coach, teachers can learn to develop more rigorous questions and tasks that will engage students in high level thinking.

Examples of Probing Questions:

- What was the level of your questions and tasks as measured by Bloom's or Webb's Depth of Knowledge?¹⁴
- · Did students have an opportunity to demonstrate or apply their learning? Cite specific evidence.
- · Were the students struggling, frustrated, or completing the task effortlessly? Cite specific evidence.
- Is there an opportunity for deep understanding of the content? Cite specific evidence.
- Is the task congruent with standards and expectations for rigor? Cite specific evidence.
- Is there evidence of academic vocabulary? Cite specific evidence.
- Is there room for students to be creative thinkers, problem-solvers, and collaborators? Cite specific evidence.
- · Can students apply their learning in other situations (school or real life)? Cite specific evidence.

Appendix B: School Reflection Protocol and Worksheet

Protocol

PURPOSE:

Reflecting on past practice can help schools gain insights about what was successful and what can be improved. This protocol guides teams through reflecting on past years' work and developing next steps for strengthening practice. This activity may be used throughout the year as teams continue to reflect and refine their work.

PARTICIPANTS:

All teams in a school community can engage in this activity (e.g. leadership teams, instructional cabinets, grade level and department teams, professional learning communities, School Implementation Teams, Response to Intervention teams).

MATERIALS:

- · School reflection worksheet
- Chart paper and markers (optional)

FACILITATION (75 MINUTES):

1. WELCOME AND PURPOSE SHARING (5 MINUTES)

Begin by welcoming participants and sharing the purpose of the school reflection protocol and how it fits into the context of your school. Additionally, remind participants that:

- The goal is to reflect on the past 1-3 school year(s) to prepare for success in the upcoming school year.
- · This activity does not judge success or failure.
- There are always strengths to sustain and areas for growth.
- Sharing honest observations about what actually happened without assigning praise or blame allows everyone to reflect on practice and consider how this year's work can help support success moving forward.
- · During each step, participants will independently reflect before discussing and charting in groups.

2. STEP A: WHAT WERE OUR GOALS AND PRIORITIES? (10 MINUTES)

Ask participants to independently write down the goals and priorities of the team over the past year. After individual reflection, participants will discuss and record their responses in a small groups (for context, participants may refer to the 2013-14 Citywide Instructional Expectations, school goals, school mission and vision statements, professional development plans, and other artifacts of team goal setting).

3. STEP B: WHAT ACTUALLY OCCURRED? (10 MINUTES)

After discussing the year's goals and priorities, ask participants to reflect on what transpired in the past year(s). After independent reflection, participants will discuss and chart in small groups.

4. STEP C: WHAT WENT WELL AND WHY? (15 MINUTES)

In groups, ask participants to discuss and chart a list of successes that supported the goals and priorities of this year. Ask groups to then record their ideas for ways and strategies to continue these successes in the future.

¹³ Apps like YouTube Capture and Power Recorder allow you to easily capture and embed video recordings in an email.

¹⁴ These taxonomies can be accessed online here: http://www.stancoe.org/SCOE/iss/common_core/overview/overview_depth_of_knowledge/dok_bloom.pdf.

5. STEP D: WHAT CAN BE IMPROVED AND HOW? (15 MINUTES)

Ask groups to reflect on their responses in Step B and think through what they believe could have been done better. Additionally, ask groups to consider what could be done in similar situations in the future to ensure success. Remind participants that the intention is not to place blame, but rather to think strategically about improving future actions.

6. STEP E: HOW CAN THIS REFLECTION GROUND OUR WORK MOVING FORWARD? (15 MINUTES)

Begin by asking groups to share their charts from steps A-D with the whole group. Afterwards, lead participants in a discussion of how the strengths and areas for growth identified can help ground the work moving forward. Brainstorm and discuss the next steps for strengthening this work and how your team will follow through.

7. CONCLUSION (5 MINUTES)

Conclude the event by thanking the participants for their honesty and hard work. Share the decided upon next steps for putting the reflection into action.

Worksheet

STEP A: What were our goals and prior	rities during the past 1-3 school years?			
What goals and priorities did your team set over the past 1-3 school years? What benchmarks were set?				
STEP B: What actually occurred?				
Looking back, what actually transpired in relation to the goals?				
STEP C: What we	nt well and why?			
What were successful steps taken t	owards achieving your objectives?			
SUCCESSES	HOW TO ENSURE SUCCESS IN THE FUTURE			
STEP D: What can be	improved and how?			
What could be done better? What can we do differentl	y in similar situations in the future to ensure success?			
WHAT CAN BE IMPROVED	RECOMMENDATIONS			
STEP E: How can this reflection g	round our work moving forward?			
After this reflection, what can we do to set our course in the right direction?				
What are our next steps as a team? How will we follow through on these next steps?				

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