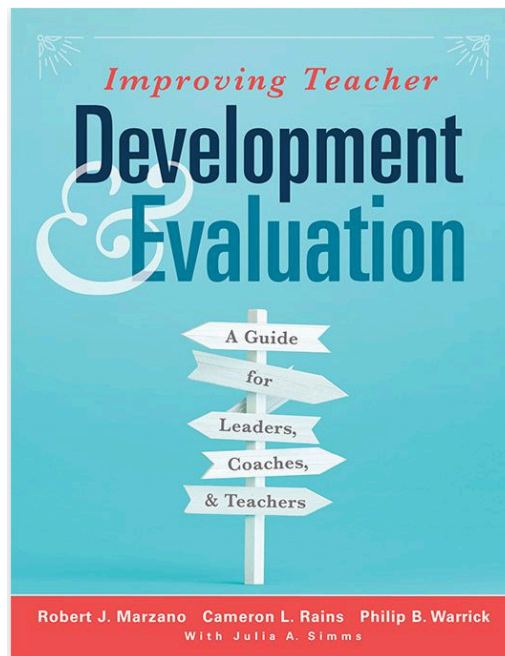


IPLI HRS Level 2 Deep Dive

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Improving Teacher Development



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Leading Indicator 2.1: The school communicates a clear vision of how instruction should be addressed in the school.

Sustaining	Applying	Developing	Beginning	Not Attempting
The school continually cultivates information through quick data sources to monitor the extent to which the schoolwide language or model of instruction is consistently used, and it takes proper actions to intervene when quick data indicate a potential problem.	The school has implemented a schoolwide language or model of instruction, and it can produce lagging indicators to show the desired effects of these actions.	The school has implemented a schoolwide language or model of instruction.	The school is in the beginning, yet incomplete, stages of implementing a schoolwide language or model of instruction.	The school has not attempted to implement a schoolwide language or model of instruction.

- Substantial school improvement requires a coordinated, systemic, and collective effort rather than a series of isolated individual events.
- Leaders of Learning Rick DuFour and Robert Marzano 2012

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Why implement a model of instructional?

- Establishes a common language of instructional practice for school-wide collaboration.
- Clearly defines instructional actions that a school commits to using to help students learn.
- Identifies specific aspects of pedagogical growth for teachers as professional learners.
- Provides a framework for quality, initial instruction aka... tier one (RTI / MTSS).

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This is the hinge point – a year’s worth of growth for a year in school.

Hattie, J. (2009). Visible learning: A synthesis of over 800 meta-analyses related to achievement. New York: Routledge.
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The Importance of Quality, First Instruction

A research-based model of instruction provides clear expectations for quality, initial instruction.

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educational systems and structures for growing expert teachers are not very effective. If, in fact, teachers do plateau after five years, it likely has more to do with the system's deficiencies than it does the traits of individual teachers. In our cumulative conversations with educators across the United States as to how it could be possible that teachers plateau after five years of experience, we find that the following opinions are common.

1. Less experienced and younger teachers have a go-getter attitude.
2. More experienced teachers do not have anything left to prove.
3. More experienced teachers burn out, leading to a lack of growth.
4. Less experienced teachers work harder because they are less comfortable in their positions.

Our experience with teachers has been quite different from these opinions. We have worked with as many experienced teachers who are go-getters as we have worked with younger, less experienced teachers who are go-getters. We have encountered many experienced educators who are still working to get better and improve schooling for their students. Teacher burnout seems as prevalent, and perhaps more prevalent, with less experienced teachers than among those with more experience. Finally, we have worked with countless teachers with a great deal of experience who continue to work very hard at their craft.

We believe that all teachers can improve their pedagogical skills regardless of their current skill levels and regardless of their years of experience. Even if teacher growth does in fact flatline after five years, we are convinced that this trend can be mitigated. To do this, however, individual teachers and the school systems in which they work must be cognizant of the different types of practice and use those types accordingly.

Different Types of Practice

An analysis of the research on expertise reveals key phases and actions for teacher growth and development, especially after the initial phase of rapid growth ends. Here we rely heavily on the work of Anders Ericsson. Ericsson was a Conradi Eminent Scholar and professor of psychology at Florida State University and was recognized as one of the world's premier researchers on human performance and expertise. For over forty years, he studied experts and how they achieved expertise. This study led him to research and analyze experts across multiple fields for many decades, charting their paths to expertise. Ericsson's work has been widely cited, adopted, and adapted, including in Malcom Gladwell's (2008) book, *Outliers: The Story of Success*. In their 2017 book, *Peak: Secrets for the New Science of Expertise*, Anders Ericsson and Robert Pool highlight three types of practice that people engage in across all fields that lead to varying levels of improvement: naïve practice, purposeful practice, and deliberate practice.

Naïve Practice

Naïve practice, according to Ericsson and Pool (2017), involves simply practicing or doing something over and over and expecting to get better at it. This works when you have never engaged in or are relatively new to the skill you are practicing. For example, none of the authors of this text can play the violin. If we all picked up violins and began to practice feverishly, we would improve, to a point. That is accurate for new skills. Naïve practice only works temporarily, until one has gained enough skill to plateau. This is one of Ericsson's biggest criticisms of *Outliers* (Gladwell, 2008) and the alleged ten-thousand-hour rule of practice to become an expert. Engaging in ten thousand hours of naïve practice will not make anyone an expert. With teaching, it stands to reason that naïve practice would work for those who have not taught before (that is, teachers at the beginning of their careers).

The issue in education is that almost all of the practice that teachers engage in is naïve practice. One cannot develop expertise through continual naïve practice. If teachers do reach a plateau after five years of experience, this could be one major reason why. To push through this plateau effect (if it, in fact, exists), teachers need to engage in purposeful practice, or even better, deliberate practice.

Purposeful Practice

Purposeful practice, according to Ericsson and Pool (2017), consists of practice that meets four criteria, as follows.

1. Defining clear, specific goals
2. Staying focused
3. Receiving feedback
4. Getting out of one's comfort zone

Educators can engage in purposeful practice in their schools, although the existing structures and systems in schools do not necessarily support or reward it. For example, teachers typically receive feedback from their supervisors about their teaching in general. This notwithstanding, many teachers go the entire year without feedback on a well-defined, specific goal. When supervisors do give feedback on specific goals, the frequency of the feedback is typically only a few times per school year. In addition, when the purposeful practice is tied to teacher evaluation systems, the process is often contrived because the teachers know they are being measured. This can lead to educators selecting goals that they know they can easily achieve rather than those they really need to work on. If growth and development of teaching expertise are the goals, this is not good enough. As we explain in subsequent sections, there are solutions to these issues.

Purposeful practice allows people to continue to improve beyond what is possible with naïve practice, but it still has limits. The best approach for the development of expertise—and in fact, a required component for experts across all fields—is

large doses of deliberate practice over the course of many years.

Deliberate Practice

Deliberate practice includes the criteria for purposeful practice, but it also includes additional characteristics. According to Ericsson and Pool (2017):

1. Deliberate practice develops skills that other people have already figured out how to do and for which effective training techniques have been established . . . [It is] overseen by a teacher or coach who is familiar with the abilities of expert performers and with how those abilities can be developed.
2. Deliberate practice takes place outside of one's comfort zone and requires the student to constantly try things that are just above his or her abilities.
3. Deliberate practice involves well defined, specific goals. . . . It is not aimed at improving some vague overall improvement.
4. Deliberate practice . . . requires a person's full attention and conscious actions. It isn't enough to simply follow a teacher's or coach's directions.
5. Deliberate practice involves feedback and modification of efforts in response to that feedback. Early in the training process, much of the feedback will come from the teacher or coach, who will monitor progress, point out problems, and offer ways to address those problems. With time and experience students must learn to monitor themselves, spot mistakes, and adjust accordingly.
6. Deliberate practice both produces and depends on effective mental representations. Improving performance goes hand in hand with improving mental representations; as one's performance improves, the representations become more detailed

Leading Indicator 2.2: Support is provided to teachers to continually enhance their pedagogical skills through reflection and professional growth plans.

Sustaining	Applying	Developing	Beginning	Not Attempting
The school continually cultivates information through quick data sources to monitor the extent to which all teachers establish growth goals for pedagogical skills and track their individual progress, and it takes proper actions to intervene when quick data indicate a potential problem.	The school has protocols and practices in place to ensure that all teachers establish growth goals for pedagogical skills and track their individual progress, and it can produce lagging indicators to show the desired effects of these actions.	The school has protocols and practices in place to ensure that all teachers establish growth goals for pedagogical skills and track their individual progress.	The school is in the beginning, yet incomplete, stages of drafting protocols and practices to ensure that all teachers establish growth goals for pedagogical skills and track their individual progress.	The school has not attempted to ensure that all teachers establish growth goals for pedagogical skills and track their individual progress.

Panic Zone Goals	Goals set in this zone can limit personal development because they represent a potential reach too far in personal growth. Emotions associated with this zone include: Anxious, Tense, Stressed, Disinclined, Fearful
Stretch Zone Goals	Goals set in this zone offer the ideal opportunity for personal development. Emotions associated with this zone include: Excitement, Anticipation, Challenge, Expectant
Comfort Zone Goals	Goals set in this zone offer little to no personal development. This zone represents areas in which individuals are already competent and setting the goal is simply a matter of compliance. Emotions associated with this zone include: Safe, Easy, Bored, Unchallenged

Source: Adapted from © 2000 by Senniger.

ELEMENT 6: Chunking Content

What do I typically do to chunk content into short, digestible bites?

Teacher Evidence

Behaviors

- ☐ I systematically use preassessment data to plan for chunks.
- ☐ I systematically present new content in larger or smaller chunks based on students' initial understanding of new content.
- ☐ I systematically group students to process the chunks of information I taught.
- ☐ I systematically present new declarative knowledge; I ensure the chunks comprise concepts and details that go logically together.
- ☐ I systematically present new procedural knowledge; I ensure the chunks comprise steps in a process that go together.

Understandings

- ☐ I thoroughly understand the nature of chunking content in terms of enhancing students' learning.

- ☐ I thoroughly understand the various ways I can use chunking in the classroom.

Student Evidence

Behaviors

- ☐ Students commonly actively engage in processing content between chunks.
- ☐ Students commonly appear to understand the content in each chunk.

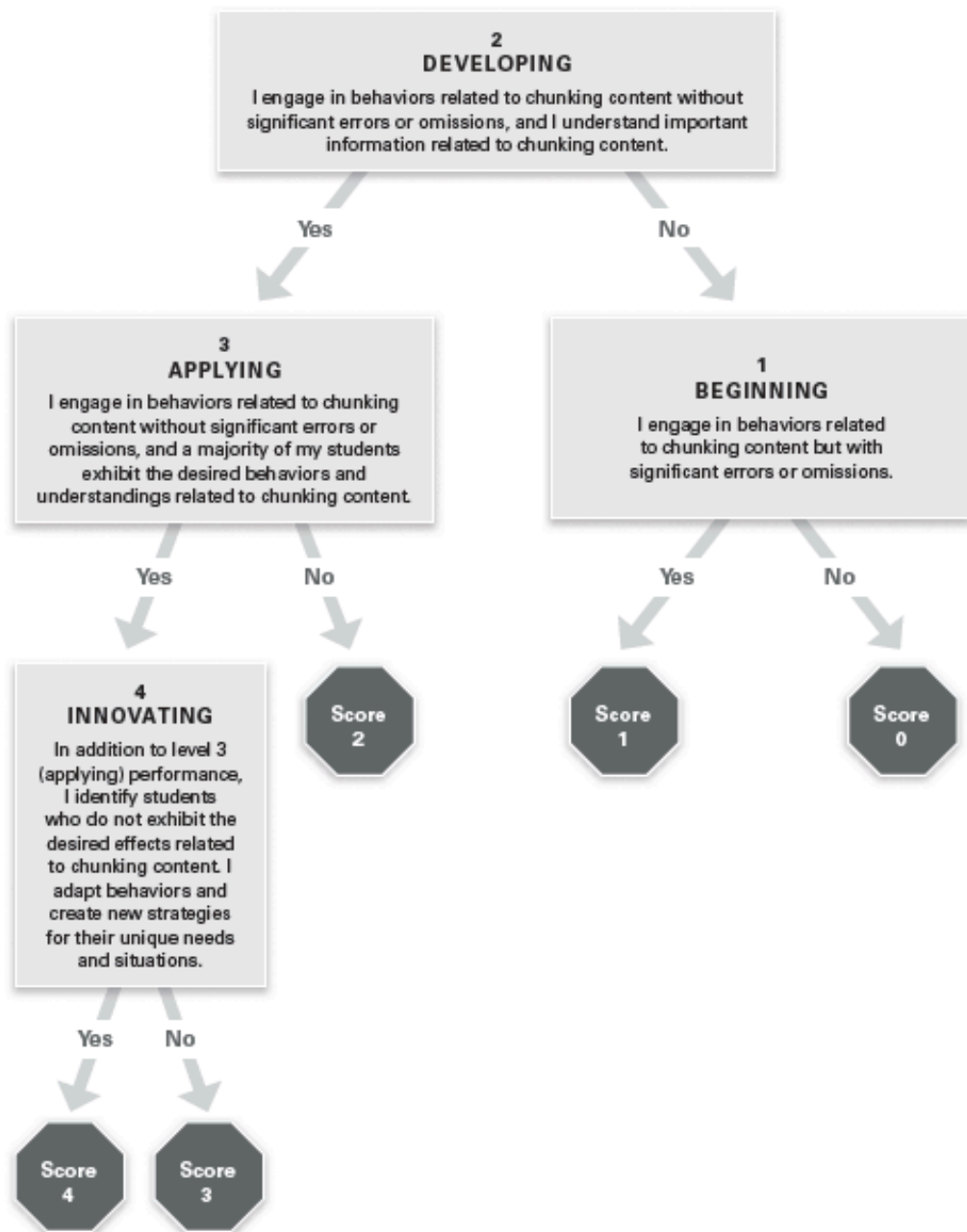
Understandings

- ☐ Students can explain why I stop at specific points during presentation of new content.
- ☐ Students can determine whether chunking is working for them or not.

Self-Rating Protocol

Always begin with step A; see Teacher Evidence and Student Evidence for details.

Step	Score	Descriptor	Directions
C	4 Innovating	In addition to level 3 (applying) performance, I identify students who do not exhibit the desired effects related to chunking content. I adapt behaviors and create new strategies for their unique needs and situations.	If yes, score 4 If no, score 3
B	3 Applying	I engage in behaviors related to chunking content without significant errors or omissions, and a majority of my students exhibit the desired behaviors and understandings related to chunking content.	If yes, go to step C If no, score 2
A	2 Developing	I engage in behaviors related to chunking content without significant errors or omissions, and I understand important information related to chunking content.	If yes, go to step B If no, go to step D
D	1 Beginning	I engage in behaviors related to chunking content, but with significant errors or omissions such as breaking the content into chunks that are not small enough for students to easily process or breaking content into chunks that are too small.	If yes, score 1 If no, score 0
	0 Not Using	I do not engage in behaviors related to chunking content.	



Generic Scale for Instructional Practice and Phases of Teacher Growth

Autonomous Phase		Shaping Phase		Cognitive Phase
Innovating 4	Applying 3	Developing 2	Beginning 1	Not using 0
The teacher integrates several strategies to create a macrostrategy or adapts strategies for unique student needs and situations	The teacher uses strategies or behaviors associated with an element and monitors their effects on student outcomes.	The teacher uses strategies or behaviors associated with an element, but in a mechanistic way.	The teacher uses strategies or behaviors associated with an element incorrectly or with parts missing.	The teacher is unaware of strategies or behaviors associated with an element

Focus is on Learning		Focus is on Teaching		
Innovating 4	Applying 3	Developing 2	Beginning 1	Not using 0
The teacher integrates several strategies to create a macrostrategy or adapts strategies for unique student needs and situations	The teacher uses strategies or behaviors associated with an element and monitors their effects on student outcomes.	The teacher uses strategies or behaviors associated with an element, but in a mechanistic way.	The teacher uses strategies or behaviors associated with an element incorrectly or with parts missing.	The teacher is unaware of strategies or behaviors associated with an element

4 Innovating	In addition to level 3 (applying) performance, the teacher identifies students who do not exhibit the desired effects related to this element. The teacher adapts behaviors and creates new strategies for their unique needs and situations.
3 Applying	The teacher engages in behaviors related to this element without significant errors or omissions, and a majority of his or her students exhibit the desired behaviors and understandings related to this element.
2 Developing	The teacher engages in behaviors related to this element without significant errors or omissions, and understands important information related to this element.
1 Beginning	The teacher engages in behaviors related to this element, but with significant errors or omissions.
0 Not Using	The teacher does not engage in behaviors related to this element.

Source: © 2021 by Robert J. Marzano.

Figure 3.1: Generic form of the scale for the forty-three elements.

the brain of a learner engaged in the types of practice that develop expertise:

As people actively practice an object of learning, they get better at what they are practicing because their brains are growing more dendrites, synapses, and neural networks for that specific object of learning. The larger the network gets the more naturally and automatically they can think about, remember and use that object of learning. (p. 72)

In the coaching relationship, the teacher's brain is in the process of learning a new skill.

It is important for coaches to understand how the different levels of performance in the coaching scale correlate to a teacher's development over time. To this end, Marzano and Simms (2013) identified and explained three stages of teacher growth that occur in the learning process.

1. **Cognitive phase:** The cognitive phase occurs when a teacher learns about a new strategy and researches how to use it.
2. **Shaping phase:** The shaping phase refers to a teacher's initial usage of a new strategy, when significant errors and omissions often occur.
3. **Autonomous phase:** The autonomous phase represents a teacher's ability to use

a strategy easily and fluently, as well as customize the strategy for specific students and situations.

These three stages represent the process teachers experience as professional learners. Understanding the learning process that occurs through the three stages of development will assist coaches in aligning specific coaching strategies to a teacher's progress through the levels of performance represented in the coaching rubric.

The coaching rubric serves as a lens to assist instructional coaches as they guide a teacher from one level of the rubric to the next. In doing so, coaches are practicing the act of coaching as described by Marzano and Simms (2013): "Moving a person from where he or she is to where he or she needs or wants to be" (p. 4). To this end, we have specific recommendations for how a coach might help move a teacher from each level to the next as the teacher progresses from not using (0) all the way up through innovating (4).

Not Using (0) to Beginning (1)

Teachers at the not using (0) level, moving toward beginning (1), are in the cognitive stage of their development relative to a specific strategy. At this stage, they need to learn more about the

instructional element they have selected and consider possible strategies they can use to implement the element in their classrooms. Strategic coaching for this move includes the following actions.

- Provide teachers with research supporting the element so they understand why the element is important to student learning. When teachers understand the reasons behind an element, they can focus their thinking about how it might work in their practice.
- Provide teachers with several sample strategies for the element. For this process, the Marzano Compendium of Instructional Strategies (Marzano Resources, 2016) is an excellent resource.
- Work with the teacher to select a strategy the teacher has some initial understanding about or thinks would be useful in his or her specific grade level or content area.
- Provide an understanding of the steps of the chosen strategy to enhance the teacher's confidence and knowledge to try the strategy for the first time. This could include working with the teacher to write a short script or a step-by-step guide to follow the first few times he or she tries a strategy. The following text is an example of a script for a teacher who is planning to use a four corners discussion strategy for the first time.
 1. Explain the purpose of the four corners strategy (movement and perspective discussion).
 2. Tell students to move only when you tell them to go.
 3. Explain the expectations for how students should move to the corner they select.
 4. Tell students the expectations for how to discuss their perspectives with others.

5. Ask if there are any questions about what you are asking students to do.
 6. Describe the perspectives represented in each of the four corners.
 7. Tell students to think silently to themselves and consider the four perspectives.
 8. Tell students to move to their corner and discuss why they selected that perspective.
- Discuss and develop a protocol for strategies that do not have specific steps. An example of such a protocol would be students using individual whiteboards as a response system. There are no specific steps for how this strategy should be used, so teachers need to develop guidance for how the whiteboards will be used. For example, the teacher's guidance for using whiteboards might specify that students hold their boards up for the teacher to see when told to "display your thinking" and then put their boards down on a similar signal from the teacher. The protocol could also include how the teacher will have students discuss their thinking with others as part of the whiteboard activity.
 - If possible, model, co-teach, or show a video of the selected strategy. It is valuable for the instructional coach to provide a live or recorded demonstration to develop a teacher's mental model of the strategy.

Beginning (1) to Developing (2)

The first time a teacher tries a new strategy, he or she enters the beginning level (1) of the scale and the shaping stage of development relative to a specific strategy. The key to continued development is to eliminate errors and improve fluency in the use of the selected strategy. Strategic coaching for this move includes the following.

- Encourage teachers to tell students they are using a new strategy and how it is designed to help them learn.
- Look for proper setup and directions for the new strategy and observe whether learners understand what they are supposed to be doing.
- Monitor for correct execution of the strategy if it has specific steps or the use of a protocol for a strategy that requires one.
- Focus attention on the students in class and monitor the effects of the strategy on them. At the shaping stage of development, teachers are still focused heavily on their own use of the strategy and are not yet able to pay close attention to how the strategy is affecting students. By watching students, the coach will be able to provide specific feedback regarding student evidence that the teacher may not even notice.
- If possible, record video of the teacher and students during the use of the strategy. Watching the video collaboratively can initiate productive conversations about adjustments in the teacher's practice that might improve his or her application of the strategy.

Developing (2) to Applying (3)

For a teacher, the move from the developing level (2) to the applying level (3) represents a shift from focusing on teaching to focusing on student learning. This is the move from the shaping phase of development to the autonomous phase of development. *Autonomous* means that teachers are mastering the use of a strategy such that they do not have to consciously think about what they need to do next to make the strategy work. This allows a teacher to turn his or her attention to the key aspect of the applying level (3), which is *monitoring*—purposefully looking and listening for the effects of the strategy on students. These effects on students are described for each of the forty-three elements

of the NASOT model in the Student Evidence sections of appendix A (page 97). Strategic coaching for the move from developing to applying includes the following.

- Coach teachers to understand that monitoring goes deeper than learner compliance with the strategy. Their monitoring must determine whether the strategy is having the intended effect on the learners. For example, monitoring the use of the four corners discussion strategy involves not only noting that students are following the directions, but also determining whether the strategy helps them better understand various perspectives on a topic.
- Work with teachers to focus on three categories of monitoring the effectiveness of a strategy within a specific element of instruction. The three categories are: (1) students' actions, (2) direct questions to students, and (3) artifacts or products. Together, identify options for monitoring the strategy a teacher is using. A teacher might use ideas from one, two, or all three categories to monitor the effectiveness of the specific strategy they are using. Figure 3.2 (page 38) samples monitoring ideas for the instructional strategy of combination notes, which falls within element 8, recording and representing content.
- Observe the decisions teachers make based on their monitoring. If the strategy is not having the desired effect on the learners, do they make an effort to monitor and adjust the use of the strategy? When teachers are monitoring correctly for the effect of the strategy, they will usually adjust their instruction. However, if they are simply monitoring for learner compliance, they often move forward without adjusting even if adjustment is needed.

Student Actions	Direct Questions to Students	Artifacts or Products
Students actively record information in the written-notes column on the left side of the paper and make graphic representations in the space on the right side of the notes.	What are some of the most important pieces of information you have written down so far? How did you choose to represent those graphically?	Completed note-taking products include written notes, graphic representations, and summary points at the bottom of the page.

Figure 3.2: Ideas for monitoring the effectiveness of the combination notes strategy.

Applying (3) to Innovating (4)

To reach the highest level on the scale, a teacher must truly become an innovator with the specific strategy he or she is developing. The teacher is continuing in the autonomous stage of growth and now understands the use of the strategy well enough to build hybrid versions to accommodate the needs of students for whom the strategy is not working. Strategic coaching at this level includes at least two specific approaches.

- Help teachers develop a macrostrategy. Marzano and Simms (2013) define *macrostrategy* as “a set of instructional strategies used together for a specific purpose” (p. 155). For example, assume a teacher selected element 24, increasing student response rates, as his growth goal element. His initial strategies for growth in this area were wait time and random selection of students. As a result of his practice and focused feedback, he is using these two strategies at the applying level. In order to continue his growth, the coach helps him construct a macrostrategy for the purpose of involving more learners and getting students to engage more deeply in the content. Specifically, the coach suggests that the teacher add two additional strategies to his questioning practice: response chaining (asking students to comment on the answer provided by a student, then asking students to comment on that second

response, and so on) and multiple types of questions (involving multiple students to answer retrieval, analytical, predictive, interpretive, and evaluative questions). By combining the four strategies of wait time, random selection, response chaining, and multiple types of questions, the teacher creates a macrostrategy to use for the purpose of involving more learners and provoking deeper engagement in the content.

- Help teachers adapt strategies for the needs of different learners. For example, a teacher who is at the applying level (3) in her use of the instructional element of assigning purposeful homework (element 20 in the NASOT model) wants to move to level 4, innovating. Recognizing the need to differentiate practices to accommodate the different levels of development among her students, she adapts the purposeful homework strategy by creating a homework choice menu in which each option indicates the specific topic that homework assignment addresses. This allows students to self-select their homework assignments based on the topics with which they need more practice. It also empowers the teacher to direct students toward specific homework exercises that will help them practice areas they need to strengthen.

One of the keys use of formative assessment is to monitor the effectiveness of Instruction during instruction...."Active Progress Monitoring"or "Checking For Understanding".

A clear and direct focus on learning.

Three key ways to monitor:

Instructional Practice:

Students' Actions	Direct Questions to Students	Students' Artifacts
Look for and listen for specific student actions based on an instructional element or strategy.	What will you specifically ask students to determine the effect of a strategy?	Products produced as a result of a specific strategy. (What should you expect to see?)

Instructional Practice: Recording and Representing Content

Students' Actions	Direct Questions to Students	Students' Artifacts
<ul style="list-style-type: none">Students actively record information in an appropriate format.Students ask questions to clarify information they are recording.	<ul style="list-style-type: none">Can you explain the organization of this information?What are some of the important pieces of information you have recorded?	<ul style="list-style-type: none">Note taking formats are completed correctlyGraphic Organizers are completed.Students create models of concepts

Three Phase Feedback Protocol

Used to promote growth and done in narrative format without any type of formal scoring.

Usually focused on the predominant element being observed in a short walkthrough or sit-in observation and for instructional coaching focused on growth goal elements.

Describe:

As a coach observes instruction, he/she describes exactly what they see and hear. This can include scripting direct quotes from teachers and students as well as general observations about teacher and student behaviors. The goal is to describe exactly what is seen and heard. This information will inform the next two steps in the protocol.

Acknowledge and Celebrate:

In this phase of the protocol a coach has an opportunity to acknowledge growth they have seen in a teacher's practice and/or recognize aspects of the strategy the teacher was doing well. This allows the coach to engage in the concept of connection before correction.

Coaching for Continued Growth:

For this part of the protocol a coach should refer to the coaching rubric in and determine where they see the teacher's current status on the rubric. A coach can then consider the feedback strategies associated with moving a teacher from one level to the next level to help construct specific feedback. This part of the protocol also provides an opportunity for a coach to use reflective questions and create a two-way coaching conversation.

Possible Reflective Questions:

- What did you think worked well in the strategy you were using?
- What was your goal in terms of student learning with this strategy?
- Did students get what you wanted them to get in terms of learning?
- What went better than you expected?
- What didn't go as well as you had expected?
- If you could do it over again, would you change anything?
- How did the lesson finish after I left the room?
- How can I support your continued growth in using this strategy in your practice.

Predominant Focus Element/Strategy:_____

Describe:

Acknowledge:

Coach:

Predominant Focus Element/Strategy:_____

Describe:

Acknowledge:

Coach:

Predominant Focus Element/Strategy:_____

Describe:

Acknowledge:

Coach: