



# BY LESLIE PATTERSON AND CAROL WICKSTROM

ow much support do my learners really need?
How much independence can they handle?
When do I step in? When do I back off? Those are the questions that effective literacy teachers ask. Those are also the questions that make for responsive professional development on pre-K-12 campuses.

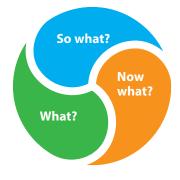
Responsive professional development is about watching learners closely, interpreting observations to make nuanced decisions, and taking action to support learners at particular moments. What might they be ready to do next? What instructional moves will best provide "just enough" support? In other words, what is our next wise action? Responsive teaching is, in fact, an ongoing cycle of inquiry, reflection, and action that might be called "Adaptive Action" (Eoyang & Holladay, 2013) — see the figure on p. 49.

As teacher consultants with the North Star of Texas Writing Project — a local site of the National Writing Project (www.nwp.org) — we facilitate Adaptive Action with educators who are working to set conditions for powerful literacy learning in grades pre-K-12. In National Writing Project, we know the power of responding to questions as they arise from our daily work, but we are also aware of the need to build some degree of coherence across classrooms, grade levels, and content areas. That poses a central challenge for professional learning leaders.

If, as professional developers, we provide too much structure — too many ready-made answers — we risk shutting learners down by stifling engagement and creative problem solving. On the other hand, if we



For more information about Adaptive Action, see www.hsdinstitute. org/resources/adaptive-action.html.



encourage individual teachers to go wherever their unique inquiries lead, we risk fragmentation into silos.

To support individuals while contributing to collective learning, we have to adapt to the complexity within each individual learner and the complexity of the whole school. We have studied the nature of complex systems and found three flexible tools that help us resolve these persistent questions about how much and what kind of support is most appropriate.

These tools are grounded in the study of complex learning systems (e.g. Davis & Sumara, 2006; Ricca, 2012). We have adapted these particular tools from the emerging field of human systems dynamics (Eoyang, 2002;

Eoyang & Holladay, 2013; Patterson, Holladay, & Eoyang, 2013). Briefly, the goal of human systems dynamics is to help people do three things:

- See the patterns in the complex systems where they live, work, and play;
- Make sense of those patterns; and
- Take action that will be responsive, adaptive, and generative — actions that will sustain the system into the future.

In fact, those three steps are the essence of Adaptive Action.

# **COMPLEX LEARNING**

Complexity science is a family of

models, theories, perspectives, and methods grounded in many disciplines. We don't need to master the field; we can simply choose a few useful concepts and tools relevant to professional learning. We have found that this approach resonates with educators because it speaks to the realities in schools. These concepts and tools help educators deal with complex challenges that can otherwise seem overwhelming. With educators, we begin with an explanation of four characteristics of complex systems:

- Open to influence: Everything is subject to influences from both within and outside the system.
- Diverse across many dimensions:
   In schools, these dimensions



### TOOL 1

# THREE BIG QUESTIONS

- **1.** Who are we? (What are we about? What is our work?)
- 2. What is important to us? (What differences make a difference to our work?)
- **3.** How shall we work together? (What structures, meetings, documents, and tools shall we use together?

include age, gender, culture, language, achievement levels, and others.

- Unpredictable: Each action
  has the potential to change the
  whole system in multiple ways.
- Interconnected: The image of a network is useful.

Clearly, these characteristics describe the networks in which our students put literacy to work every day — families, neighborhoods, peer groups, and their classroom communities. In addition, students engage in multiple, complex literacies — various languages, media, and discourses essential to success in school and life. All these involve complex adaptive systems — open, diverse networks in which the participants, materials, and environment interact in nonlinear, unpredictable ways (Patterson, Holladay, & Eoyang, 2013). Obviously, literacy teachers and campus and district leaders also navigate equally complex networks.

One-size-fits-all approaches simply do not fit the complex realities of classrooms. Like physical growth, language and literacy development (and teacher development) tend to progress in spurts, and, although we can point to developmental patterns over time, TOOL 2

### PATTERNS OF POWERFUL LITERACY LEARNING

Empathy and community			Collaborate to build a safe space where innovations and actions can occur.						
*	*	*	*	*	*	*	*	*	*
Deep con learning	itent		Work har	d to lea	rn about	the wor	ld and o	ur place i	in it.
*	*	*	*	*	*	*	*	*	
Inquiry			Dare to quanswers.	uestion;	embrac	e the unl	known; s	earch foi	r
*	*	*	*	*	*	*	*	*	-
Authenticity		Connect our learning with significant audiences, tasks, and purposes.							
*	*	*	*	*	*	*	*	*	
Modeling apprentic	•		Teach an	d learn	together				
*	*	*	*	*	*	*	*	*	-
Re-vision	ing		Imagine a					at first yo	ou
*	*	*	*	*	*	*	*	*	-)
Dialogue			Speak, lis	ten, rea	d, and w	rite with	an open	mind ar	nd
· g ·			heart.						

individual progress is unpredictable. Responsive teachers adapt their plans as needed. As many teachers tell us, some individuals need more structure; some need less.

As we come to understand how complex systems work, we can more effectively see, understand, and influence the patterns in our learners. That's what Adaptive Action helps us do. We can decide when to step in to offer support and when to back off, facilitating independent learning when possible.

We have found three particular tools from this study of human systems dynamics that help us do that (Eoyang & Holladay, 2013; Patterson, Holladay, & Eoyang, 2013): Three Big Questions, Patterns of Powerful Literacy Learning, and Literacy Learning Landscape Diagram.

# TOOLS TO BUILD COHERENCE

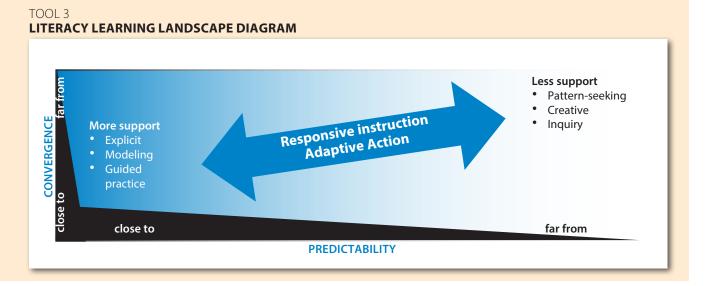
TOOL 1

### **THREE BIG QUESTIONS**

As we begin any professional learning project or summer writing institute, we ask participants to think with us about how our learning community will answer these three big questions:

- Who are we? (What are we about? What is our work?)
- What is important to us? (What differences make a difference to our work?)
- How shall we work together? (What structures, meetings, documents, and tools shall we use together?)

These questions provide springboards to conversations about our shared identity, shared beliefs, and



shared practices — three conditions that combine to influence what happens in complex human systems (Eoyang, 2002). The point is not to come up with publishable answers to these questions (like mission statements and strategic plans) but to engage in honest conversation about these questions over time. Answers to these questions are fluid and serve until the group revisits and considers revisions.

For example, we used these questions in our work with English language arts teachers at Killough High School, a 9th- and 10th-grade center in Lewisville (Texas) ISD and a Title I campus with a large number of English learners. In June 2013, they invited us to lead a professional development workshop with them, focusing on ways to support student writers — particularly to help them refine how they prepare students for the state writing test.

Teacher consultants from our writing project led a one-day workshop in June, and we followed up with monthly meetings through the school year. At these meetings, we addressed their concerns, looking at student work and helping them plan responsive instruction. We recommended professional readings and demonstrated instructional strategies. In late fall,

some of these teachers also attended a districtwide workshop in which we demonstrated a lesson framework to use in their after-school intervention.

In a half-day interactive workshop in January 2014, we facilitated conversations about the Three Big Questions. These teachers enjoy a positive campus climate, but they are not immune to anxiety about test scores and were feeling panicky about the upcoming test. In that workshop, we used this tool to invite them to talk about their heartfelt literacy goals for their students.

The second question in particular — What is important to us? — gave them an opportunity to talk about the patterns emerging from their complex work. We asked them to list their students' strengths and targets for growth. We pointed out that these were patterns that emerged in individuals and among groups of students. We then asked them move from "what is" to "what might be" — to talk about the patterns they wanted to see in their students' reading and writing.

Besides higher test scores, of course, they wanted to see more confidence, more fluency, more enthusiastic engagement, more proficiency across multiple genres, and more critical thinking. Those patterns clearly pointed to what mattered most to these teachers, and it was useful to foreground those goals as more important in the long term than performance on a single test.

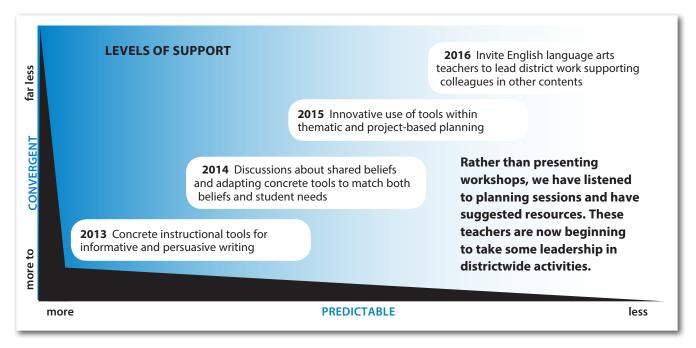
## TOOL 2

# PATTERNS OF POWERFUL LITERACY LEARNING

Then we explored patterns in the research about literacy instruction. If we want to see powerful literacy among students, what patterns shall we create in our instruction? Based on our previous work (Patterson, Wickstrom, & Araujo, 2010), we have generated a list of Patterns of Powerful Literacy Learning (see p. 50), which is our second tool.

After a brief discussion of these patterns with the Killough teachers, we then posted seven chart papers with blank T-charts around the room — one for each of the patterns. In the left column of each T-chart, we asked teachers to write what teachers can do to generate that pattern. For example, for empathy, teachers might list: "Think about what will hook students" or "Use group projects to build community." In the right column, teachers listed student behaviors: "Listen to one another" and





"Respect diverse viewpoints."

Once teachers generated a number of concrete teacher and student behaviors for each pattern, they reviewed the charts, commenting and adding to each list. We then asked them to consider which of these patterns were most important to them. We recommend choosing only two or three to emphasize because complex systems are so interconnected that, if we begin amplifying one of these patterns, the others will shift as well. The Killough teachers chose authenticity, dialogue, and apprenticeship as their shared focus.

The third big question is "How shall we work together on what is most important to us?" These teachers had already implemented instructional strategies consistent with the patterns they wanted to amplify, like daily independent reading, writer's notebooks (e.g. Buckner, 2005), and workshop approaches (e.g. Kittle, 2008).

To focus on the three priority patterns, however, they decided to look for more authentic audiences for student writing and to integrate more interactive tasks to encourage dialogue. They also planned to share their own

writing with students to strengthen the apprenticeship pattern. Those decisions, in turn, informed our subsequent work to support them.

Conversations about Three Big Questions and Patterns for Powerful Literacy Learning give teachers a degree of flexibility to make individual decisions without sacrificing coherence across the whole. Once we have used those two tools to set the conditions for flexible and coherent instructional decisions, we can attend to teachers' individual needs with our third tool, the Literacy Learning Landscape Diagram.

# TOOL 3

# LITERACY LEARNING LANDSCAPE DIAGRAM

Somewhat similar to gradual release of responsibility (Pearson & Gallagher, 1983), the Literacy Learning Landscape Diagram (see p. 51) helps us visualize

# These three tools have helped us make responsive decisions.

the kinds of support that learners might need by focusing on two dimensions of any particular teaching-learning challenge: the familiarity of the concept to be learned and whether it involves convergent or divergent thinking (adapted from Patterson, Holladay, & Eoyang, 2013; Patterson, Wickstrom, Roberts, Araujo, & Hoki, 2010).

When we judge that learners need more support, we choose predictable tasks and more convergent, less ambiguous ideas. For example, rather than introducing writing workshop — which is clearly divergent and unpredictable — we might move in to demonstrate a single lesson.

On the other hand, when teacher learners already have technical knowledge, we move out to invite individuals and groups to engage in classroom inquiry. In terms of the range of models for professional learning, we can think of the bottom left of the diagram as training. We can think of the top right as inquiry.

Typical approaches to professional development are sometimes ineffective because individuals may vary widely in terms of their current knowledge and needs. In that case, it's difficult to

# We know that a five-year plan seldom works, but these tools help us take the next wise action as we offer professional learning support.

build coherence across the whole. To be sustainable, professional development initiatives have to adapt to individuals' strengths and needs across time, and the Literacy Learning Landscape Diagram helps teachers and learners think about that.

Sometimes we outline a big landscape on the floor. We ask participants to stand in the area where they are most comfortable as a learner and explain why they chose that space. Then we ask them to move to the place where they are most comfortable as a teacher. We sometimes ask them to stand where they think their colleagues might feel most comfortable.

This activity generates fascinating conversations about individual differences and strategies to offer different levels of support (book studies, demonstration lessons, action research, etc.). These conversations inevitably move to a consideration of options for student support. We can then suggest ways to use this tool for decisions related to flexible grouping and text selection.

For example, direct instruction would fall in the lower left; independent reading and writer's workshop in the upper right. Which students need more support, and who is ready to explore a new genre? What might change as we introduce a new genre? Where are students most comfortable? When is it time to nudge them out of their comfort zones? It may vary with each student: One who needs a great deal of support in academic writing might be an explorer in digital contexts.

As we have continued to work with the Killough teachers, we have adjusted our support, and we have seen them adjust their support of students. We began with demonstrations of model lessons and concrete recommendations. More recently, rather than presenting workshops, we have listened to their planning sessions and have suggested resources when appropriate. These teachers are now beginning to take some leadership in districtwide activities (see p. 52).

# **NOW WHAT?**

These three tools have helped us make responsive decisions. We know that a five-year plan seldom works, but these tools help us take the next wise action as we offer professional learning support. They help us respond to individual strengths and needs while continuing to support collective learning.

With these tools, we can move in to build shared knowledge and skills when needed and move out to invite exploration and inquiry. These don't replace our other tools, but, when things get messy and unpredictable, we have come to depend on the power of these three tools to help us deal with the complexity on campuses where we work.

# **REFERENCES**

Buckner, A. (2005). Notebook know-how: Strategies for the writer's notebook. Portland, ME: Stenhouse Publishers.

Davis, B. & Sumara, D. (2006). Complexity and education: Inquiries into learning, teaching, and research. Mahweh, NJ: Lawrence Earlbaum.

**Eoyang, G.H. (2002).** Conditions for self-organizing in human systems (Doctoral dissertation, Union Institute & University, Cincinnati, Ohio, 2002).

Eoyang, G.H. & Holladay, R. (2013). Adaptive Action: Leveraging uncertainty in your organization. Palo Alton, CA: Stanford University Press.

Kittle, P. (2008). Write beside them: Risk, voice, and clarity in high school writing. Portsmouth, NH: Heinemann.

Patterson, L., Holladay, R., & Eoyang, G. (2013). Radical rules for schools: Adaptive Action for complex change. Circle Pines, MN: Human Systems Dynamics Institute.

Patterson, L., Wickstrom, C. & Araujo, J. (2010, June). Culturally mediated writing instruction for adolescent English language learners (Final Report). Berkeley, CA: National Writing Project.

Patterson, L., Wickstrom, C., Roberts, J., Araujo, J., & Hoki, C. (2010). Deciding when to step in and when to back off. *The Tapestry Journal*, *2*(1), 1-18.

**Pearson, P.D. & Gallagher, M.C. (1983).** The instruction of reading comprehension. *Contemporary Educational Psychology, 8*(3), 317-344.

Ricca, B. (2012). Beyond teaching methods: A complexity approach. Complicity: An International Journal of Complexity and Education, 9(2), 31-51.

Leslie Patterson (leslie.patterson@unt.edu) is co-director of North
Star of Texas Writing Project. Carol
Wickstrom (carol.wickstrom@unt.
edu) is a professor at the University
of North Texas and director of
North Star of Texas Writing Project.
Both are associates with the Human
Systems Dynamics Institute.