Strategram

The Big Four

*A simple & powerful framework
to dramatically improve instruction*

Jim Knight
*University of
Kansas Center
for Research
on Learning*

Educational leaders across the nation are trying every tactic they can to improve student achievement in their schools. Unfortunately, they are frequently overwhelmed by the many conflicting options that are available to them for instructional improvement. Change leaders are unsure where to start as they consider the multitude of ways they can improve instruction. What administrators want is one simple way to organize and implement the most-powerful improvements. What they find, however, is the opposite: numerous approaches, thousands of practices, and no simple, systematic way to organize all that is available.

At the Kansas Coaching Project, we have been working to address this issue by identifying those teaching practices that are likely to have a positive effect on the way teachers teach and the way students learn. The result of this inquiry is the Big Four, a comprehensive framework for instructional excellence made up of practices that are both easy for teachers to implement and powerful in terms of effect on teaching and learning. The Big Four framework is built around the following aspects of teaching: classroom management, content planning, instruction, and assessment for learning.

CLASSROOM MANAGEMENT

The work of Randy Sprick, Wendy Reinke, and Tricia McKale has helped us to see that a well-managed class occurs when a teacher clearly articulates expectations for all activities and transitions and then reinforces students so that they will act in alignment with those expectations. We also suggest that instructional coaches and administrators observe for the following variables in the classroom:

- Time on task: How many students are engaged in learning? We suggest a goal of 90 percent engagement.
- Ratio of interactions: How frequently does the teacher praise and correct students? We suggest that teachers use at least three times as much praise as they do corrections.
- Opportunities to respond: How frequently does the teacher prompt students to react to learning during direct instruction? We suggest at least four times per minute.

CONTENT PLANNING

The work of Keith Lenz in particular, but also Grant Wiggins, Jay McTighe, Lynn Erickson, Art Costa, and Benjamin Bloom, has helped us to see that students benefit when teachers develop

SIM
Strategic Instruction Model®

RESOURCES: CLASSROOM MANAGEMENT

- Sprick, R., Garrison, M., & Howard, L. (1998). *CHAMPs: A proactive and positive approach to classroom management.* Longmont, CO: Sopris West.

- Sprick, R., Knight, J., Reinke, W., & McKale, T. (2006). *Coaching classroom management: A toolkit for coaches and administrators.* Eugene, OR: Pacific Northwest Publishing.

- http://www.safeandcivilschools.com/index.php

BIG FOUR
(cont. from page 1)

rigorous curriculum that is aligned with state standards. This curriculum can be articulated in unit questions that point to essential knowledge, understandings, and applications as well as in learning maps that depict the progression of learning within the unit.

We believe effective unit questions should be comprehensive enough to cover the core learning outlined in state standards. Teachers can develop effective questions by

- looking for verbs and nouns in standards to identify how and what students need to learn

- identifying levels of questions by considering what students need to (a) know, (b) understand, and (c) do

- considering how to construct questions that empower students to see meaning and importance in their learning

As Keith Lenz has shown with his work on Content Enhancement, and in particular the Unit Organizer, student success can be enhanced when a curriculum is depicted in learning progression maps. Effective learning maps

- illustrate the progression of learning to occur in the class

- summarize the most important ideas to be learned in a unit

- direct students toward answers to the unit questions

- are created by teachers before a unit begins

INSTRUCTION

To better understand quality instruction, we sort learning into two organizing concepts: mechanical and metaphorical. Mechanical learning refers to the learning students experience when the content to be learned is unambiguous, when the outcomes are unmistakable and straightforward, and when there is a right and wrong answer that can be clearly identified. When a teacher employs instructional practices to enact mechanical learning, often called direct instruction, the teacher wants students to master the content pretty much in the same way that he or she understands it.

Metaphorical learning shares attributes with metaphor; it is by definition ambiguous, and it functions indirectly. This type of learning has no clear right or wrong outcome. Metaphorical knowledge is complex, ambiguous, and so uniquely individual that we damage it if we reduce it to a simple set of rules or procedures. When a teacher employs instructional practices to enact metaphorical learning, often called constructivist practices, the teacher wants students to construct their own sense of what they are learning.

RESOURCES: CONTENT PLANNING

- Ainsworth, L. (2003). *Unwrapping the standards: A simple process to make standards manageable.* Englewood, CO: Advanced Learning Press.

- Lenz B. K., Bulgren, J., Schumaker, J., Deshler, D. D., & Boudah, D. (1994). *The unit organizer routine.* Lawrence, KS: Edge Enterprises.

- Wiggins, G. & McTighe, J, (2004) *Understanding by design.* Alexandria, VA. ASCD.

- http://depot.stratepedia.org/

BIG FOUR
(cont. from page 2)

We have identified several teaching practices that can be used to support mechanical and metaphorical learning. Each of the following practices is used in different ways depending on the kind of learning it is meant to enable:

- Effective Questions: Questions that (a) address knowledge, understanding, or application domains of practice, (b) are open-ended or close-ended, (c) promote convergent or divergent learning.
- Thinking Devices: Provocative objects (such as cases, vignettes, news articles, short stories, quotations) that teachers use to generate conversation and dialogue in the classroom.
- Stories: Short anecdotes or narratives that teachers use to generate interest, anchor new knowledge, encourage hope, provide a context, offer new perspectives, and build community.
- Cooperative Learning: Group learning activities that are mediated by students and in which students have shared goals and specific roles to perform.
- Experiential Learning: Structured learning activities that simulate the knowledge, understandings, or actions students are learning. Students participating in experiential learning activities actually "live out" the content about which they are learning.
- Project-Based Learning: Authentic, student-centered activities that engage students and promote deep learning.
- Reflection Learning: Activities that prompt students to consider and explore how knowledge, understandings, or actions being learned can be applied to their personal or community lives.

ASSESSMENT FOR LEARNING

Influenced by the work of Richard Stiggins and James Popham, we have identified a methodology for guiding teachers to create and use formative assessments. This process involves six steps:

- First, identify unit questions that summarize the essential knowledge to be acquired in a class.
- Second, answer the questions by describing what students need to know, understand, and do.
- Third, identify specific proficiencies: concise statements that precisely describe what students need to know, understand, and do to answer questions.
- Fourth, identify appropriate informal assessments by creating your own or choosing from a list of 20 informal

---

RESOURCES: INSTRUCTION

- Brooks, J., & Brooks, M. (2001). *In search of understanding: The case for constructivist classrooms.* Alexandria, VA: Association for Supervision and Curriculum Development.
- Tomlinson, C.A., & McTighe, J. (2006). *Integrating differentiated instruction and understanding by design: Connecting content and kids.* Alexandria, VA: Association for Supervision and Curriculum Development.
- http://saskschoolboards.ca/research/instruction/97-07.htm

RESOURCES: ASSESSMENT FOR LEARNING

- Popham, W.J. (2008). *Transformative Assessment.* Alexandria, VA: Association for Supervision and Curriculum Development.
- Stiggins, R.J. (1997). *Student-involved classroom assessment (3rd ed.).* Upper Saddle River, NJ: Merrill Prentice-Hall.
- Stiggins, R.J. (2004). *Student-involved assessment for learning (4th ed.).* Upper Saddle River, NJ: Merrill Prentice-Hall.
- http://www.assessmentinst.com/

BIG FOUR
(cont. from page 3)

checks for understanding.

- Fifth, integrate the assessments into learning experiences effectively by assessing all students, guiding class discussion effectively, attending to non-verbal messages from students, and using pre-assessments and progress charts.
- Sixth, revisit the assessment process after you have used formative assessments to determine whether the questions, specific proficiencies, assessments, or assessment methods should be improved to better illustrate how well students are learning.
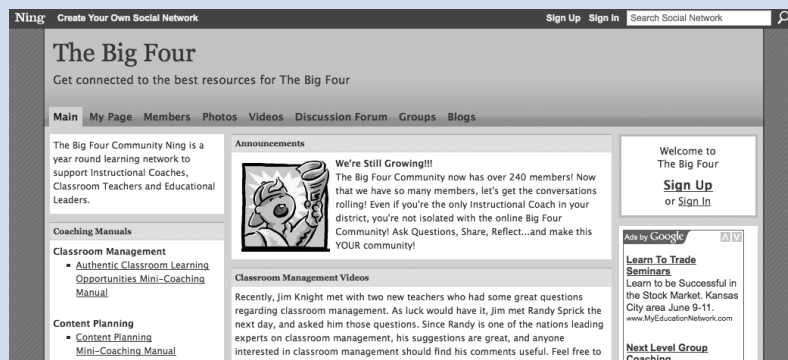
CONTINUING DEVELOPMENT OF THE BIG FOUR

The Big Four is not a finished product—indeed we hope to continually improve the tools and framework. At this point, research assistants are reviewing more than 1,000 research articles on the Big Four topics, and coaches on the Pathways to Success project and across the country are using the tools to help us identify how each practice can be improved.

You also can try out the practices and help us improve their ease of use and power to improve student learning. Several of the Big Four practices are available to be downloaded at http://thebigfour.ning.com. You can share your experiences, ideas, and questions with us and others at the Big Four Ning. Our goal is to continually improve our tools

SOCIAL MEDIA TIPS

NING | http://www.ning.com/
Ning is a service that allows people to set up their own social networking groups. See how it works by visiting http://thebigfour.ning.com.

TWITTER | http://twitter.com/
Twitter is a service that allows you to broadcast short messages about what you are doing or thinking at any given moment and to receive messages from people you elect to follow. Sign up for an account and then start looking for people to follow, like jimknight99.

based on our (a) research, (b) understanding of the research literature, and (c) practitioner feedback. Each year, the Big Four tools should be more powerful and easier to use. The Big Four mini-coaching manuals that exist online are free to download and free to share with other educators. Big Four updates will be communicated in Twitter through @jimknight99.

Soon, you also will be able to download tools for evaluating and monitoring teachers as they progress in their use of the Big Four. A protocol for leading professional learning communities that are planning implementation of the Big Four also will be available soon.

OTHER RESOURCES

The Big Four is a framework, simply an introduction and by no means a final statement about instruction. We hope that those who employ the framework will extend their professional learning by going deeper into each of the topics. Please use the Ning to tell us about the resources you use in each of these areas. A few resources that we have found useful for deepening our understanding of the Big Four include those listed in the boxes that accompany this article.