

# ON THE CUTTING EDGE



## The Responsive Teaching Cycle (RTC) by Ivan Cheng, Ed.D.

March 2016

Research suggests that teachers learn and grow more from the “construction” rather than the “consumption” of knowledge (Little, 1993, p. 135). This is accomplished when teachers are afforded opportunities to collaborate with one another in examining student work and considering ways to support student learning (Darling-Hammond, 1999; Franke et al., 1998). This use of “shared expertise” is central to an alternative model of professional development called the Responsive Teaching Cycle (RTC).

In contrast to traditional models of professional development that focus on increasing teacher knowledge in order to improve student achievement, RTC places the focus on supporting student learning, which, in turn, leads to increased teacher knowledge as a byproduct. Furthermore, the RTC model of professional development is based on research that suggests that teachers’ beliefs and practices are shaped by their experiences in the classroom (Thompson, 1992). Thus, teachers’ own classrooms are utilized as laboratories in which they can conduct “practical inquiry” (Franke et al., 1998) and apply their professional knowledge. This form of job-embedded development is more effective than typical staff development workshops (Rényi, 1998). In fact, teacher collaboration has been shown to be a powerful predictor of student outcomes, in that “a lion’s share of an individual teacher’s value-added gain to student learning, as measured by standardized test scores, was attributable to shared expertise” (Berry et al., 2011, p. 71).

Built upon key principles of Cognitively Guided Instruction (CGI) (Carpenter et al., 2000; Carpenter, Fennema, & Franke, 1996), RTC meetings structure teacher reflections and instructional planning based on careful examination of their students’ thinking. The key focus of these meetings is to brainstorm and create lesson activities or formative assessments in response to how students are learning. It should be noted that the RTC approach focuses on collaborative lesson planning around the immediate learning needs of students, unlike many “lesson study” activities (Lewis, Perry, & Murata, 2006), which typically involve periodic meetings that focus on polishing one particular lesson over some extended period of time (Curcio, 2002; Stigler & Stevenson, 1991). The concreteness and immediate applicability of the RTC discussions exemplify professional development activities that are the most effective in supporting teacher learning and improving student achievement (Berry et al., 2011).

A final distinction of the RTC is that this form of professional collaboration is not directed by formal protocols such as those used in “critical friends” groups (Curry, 2008). Instead, the teachers’ discussions of content and pedagogy are driven by their need to produce an immediate response to the students’ learning needs. Such an inquiry approach, in a setting conducive to reflective practice, gives teachers the confidence to take some risks in trying new teaching methods (Loucks-Horsley et al., 2003). And because teachers construct their own learning through practical experiences, they are more likely to continue using their newly acquired repertoire of lesson ideas and change the way they teach all of their students (Costa & Garmston, 2002). In short, teachers learn to get through to their students rather than just getting through a textbook.

**Dr. Ivan Cheng** is a Professor in the Department of Secondary Education in the Michael D. Eisner College of Education at California State University, Northridge. With over 35 years of teaching experience, he has applied research to practice in helping teachers really get through to their students.

# The Responsive Teaching Cycle (RTC)

---

## REFERENCES

- Berry, B., Barnett, J., Betlach, K., C'de Baca, S., Highley, S., Holland, J.,...Wasserman, L. (2011). *Teaching 2030: What we must do for our students and our public schools...now and in the future*. New York, NY: Teachers College Press.
- Carpenter, T., Fennema, E., & Franke, M. (1996). Cognitively guided instruction: A knowledge base for reform in primary mathematics instruction. *Elementary School Journal*, 97(1), 3–20.
- Carpenter, T., Fennema, E., Franke, M., Levi, L., & Empson, S. (2000). *Cognitively guided instruction: A research-based teacher professional development program for elementary school mathematics*. Madison, WI: National Center For Improving Student Learning and Achievement in Mathematics and Science.
- Costa, A. L., & Garmston, R. J. (2002). *Cognitive coaching: A foundation for renaissance schools*. Norwood, MA: Christopher-Gordon.
- Curcio, F. R. (2002). *A user's guide to Japanese lesson study: Ideas for improving mathematics teaching*. Reston, VA: National Council of Teachers of Mathematics.
- Curry, M. W. (2008). Critical friends groups: The possibilities and limitations embedded in teacher professional communities aimed at instructional improvement and school reform. *Teachers College Record*, 110(4), 733–774.
- Darling-Hammond, L. (1999). *Professional development for teachers: Setting the stage for learning from teaching*. Santa Cruz, CA: Center for the Future of Teaching and Learning.
- Franke, M., Carpenter, T., Fennema, E., Ansell, E., & Behrend, J. (1998). Understanding teachers' self-sustaining change in the context of professional development. *Teaching and Teacher Education*, 14(1), 67–80.
- Lewis, C., Perry, R., & Murata, A. (2006). How should research contribute to instructional improvement? The case of lesson study. *Education Researcher*, 35(3), 1–14.
- Little, J. W. (1993). Teachers' professional development in a climate of educational reform. *Educational Evaluation and Policy Analysis*, 15(2), 129–151.
- Loucks-Horsely, S., Love, N., Stiles, K. E., Mundry, S., & Hewson, P. W. (2003). *Designing professional development for teachers of science and mathematics* (2nd ed.). Thousand Oaks, CA: Corwin.
- Rényi, J. (1998). Building learning into the teaching job. *Educational Leadership*, 55(5), 70–74.
- Stigler, J., & Stevenson, H. (1991). How Asian teachers polish each lesson to perfection. *American Educator*, 15(1), 12–20, 43–47.
- Thompson, A. (1992). Teachers' beliefs and conceptions: A synthesis of the research. In D. A. Grouws (Ed.), *Handbook of Research on Mathematics Teaching and Learning* (pp. 127–146). Reston, VA: National Council of Teachers of Mathematics.

## Want to Learn More About RTC?

---

### ONLINE RESOURCES

#### ARCHES ACCESS

Is a program that uses RTC as a part of a comprehensive approach to professional development  
[http://arches-cal.org/?page\\_id=643](http://arches-cal.org/?page_id=643)

Math activities created through the RTC process  
<https://sites.google.com/site/chengpresentations/>