The Professional Teacher and Learning Cycle:

A Strategy for Creating Professional Learning Communities

D'Ette Fly Cowan

It comes as no accident that the word "learning" is positioned at the center of the term *professional learning community*, because a focus on learning lies at the core of schools that operate in this way. In such places, learning is a firmly entrenched expectation not only for students, but also for the adults responsible for student learning. In fact, learning on the part of the adults is considered a necessary precursor to learning on the part of students (Cowan, 2003).

The two words on either side of the word *learning* provide clarity about what the learning is focused on, as well as the context in which the learning occurs.

Professional indicates that the learning of adults draws upon subject matter from well-regarded sources to make them more effective in their work. This term also suggests an expectation for high standards and continuous learning that promote public respect and confidence by constantly honing existing knowledge and skills and staying abreast of emerging promising practices.

The word *community* specifies the environment that supports the professional learning—one that nurtures trust, respect, and open dialogue about a shared vision and a strong, common commitment to student learning.

These three words, when considered separately, help us to recognize that a professional learning community is more than a popular three-word catchphrase for describing schools. Each word becomes an important aspect of the total phrase. When considered together, the words

describe an *infrastructure* that supports and nurtures continuous learning and improvement on the part of adults to achieve increased student learning.

Previous chapters have described the five dimensions of a professional learning community (PLC), as well as formal and informal assessments of a school staff's current status in relation to the five.

This chapter provides a process for creating (or strengthening) a community of professional learners among the instructional staff by focusing on a critical aspect of improving student outcomes: the alignment of curriculum, instruction, and assessment to state standards (Airasian, 2004; Cawelti, 2004; Kannapel & Clements, 2005; Marzano, 2003). It offers a structure for collaboration about teaching and learning, and promotes continuous job-embedded professional development (Cowan, 2006; Hord & Sommers, 2008; Pankake & Moller, 2003). High levels of student learning become the ultimate shared goal, and strong professional relationships support continuous inquiry about existing and new instructional practices. It is a particularly powerful strategy for promoting two professional learning community dimensions described in earlier chapters: collective learning and shared personal practice.

THE PROFESSIONAL TEACHING AND LEARNING CYCLE

Figure 6.1

The literature is rife with descriptions and characteristics of professional learning communities, but it does not provide much direction on how to create and sustain them. The Professional Teaching and Learning Cycle (PTLC), originally developed as a process for aligning curriculum, instruction, and assessment to state standards in a joint effort by the Charles A. Dana Center at the University of Texas at Austin and the Southwest Educational Development Laboratory

(2005),[1] consists of six steps: (a) study, (b) select, (c) plan, (d) implement, (e) analyze, and (f) adjust (see Figure 6.1). Following is a brief description of the purpose and processes within each step, as well as a brief vignette to give the reader an idea of how the PTLC might be implemented.

Step 1: Study

In this step, teachers work in grade-level, vertical, or departmental teams to examine and discuss student achievement data and learning expectations in selected state standards. Often the selection of standards for study is predicated by high or low student performance on annual or periodic standards-based assessments. The purpose of this collaboration is to develop a common understanding of

- the concepts and skills students need to know and have to meet the expectations in the standards.
- how the standards in a grade or course are assessed on state and local tests.
- how the standards fit within a scope and sequence of the district curriculum (Cowan, Joyner, & Beckwith, 2008, p. 178).

Examining standards and objectives on which students perform at a high level helps identify strengths in the curriculum, instructional resources, and strategies. Similarly, examining standards and objectives on which students perform at a low level helps identify possible

[1] The process has been refined and is now described in the following publication: Cowan, D., Joyner, S., & Beckwith, S. (2008). *Working Systemically in action: A guide for facilitators*. Austin, TX: SEDL.

weaknesses in the curriculum, instructional resources, and strategies. Often these processes require paying close attention to the wording used in the standards and student learning expectations to determine critical concepts to be learned and skills to be mastered. Focusing attention on these concepts and skills helps build a shared understanding of how standards are connected across grade levels and subject areas.

Step 1 (Study) in Action

Principal Tate at Cimarron Middle School has organized a campus leadership team charged with primary responsibility for school improvement. The campus leadership team is composed of teacher representatives from each of the four core areas (math, reading/language arts, science, and social studies), as well as from fine arts, physical education, special education, and the Bilingual/English as a Second Language program. A district-level math coach and a district-level literacy coach who have curricular and instructional responsibilities complete the team.

The team meets on a regular basis each month to monitor implementation of the campus improvement plan and to deliberate on significant issues that emerge. The improvement plan supports the overall district plan and also addresses specific campus needs. In recent years, the team's shared norms have helped it come together by offering a range of perspectives on key improvement initiatives and by prioritizing school needs.

Now, at the beginning of the school year, the team examines the previous year's state test data and notes that student math performance is beginning to plateau. Team members come to realize that the school's current achievement level in math will not meet the state target at the end of the current year when performance standards increase. The team identifies the level of proficiency it wants students to attain on the next state assessment. Principal Tate is somewhat

surprised, and gratified, to see that teachers' expectations in math achievement for the next school year exceed the minimum state level standards for math performance.

Later that week, Principal Tate and the math and literacy coaches meet with all the math teachers during their common planning period to discuss trends and patterns in math data over the past three years. The team identifies specific standards and objectives on which student performance has shown little or no improvement over that time period. The teachers agree that their instructional strategies need to be discussed, but not all of them are willing to make major changes in their classroom practices.

After collaborating with one another, the coaches develop a plan for helping the math teachers dig more deeply into the state standards to identify the concepts and skills required for student proficiency in specific objectives.

First, they have the teachers identify major concepts and prerequisite knowledge central to the objectives. This exercise helps them note key vocabulary terms embedded within the objectives, as well as specific instructional strategies that would best fit the vocabulary terms under consideration. The coaches then have the teachers identify skills students must develop to master the objectives.

After comparing the concepts and skills in specific standards and objectives at the grade levels below and after the grade they teach, the math teachers become more aware of how concepts and skills are progressively and intentionally built from grade to grade. From this discussion, the math coach describes how she can provide professional development in research-based strategies for teaching those skills.

Finally, the math coach directs teachers' attention to specific items on the state assessment on which the objectives are tested. The coach emphasizes the prerequisite and problem-solving skills required of students in order to demonstrate proficiency on the objectives.

Step 2: Select

In this step, teams investigate research-based strategies and needed resources to promote student mastery of the targeted standard(s). Teachers collaborate to

- identify effective research-based strategies and appropriate resources that will be used to support student learning of selected state standards.
- agree on assessment techniques that will be used to provide evidence of student learning (Cowan et al., 2008, p. 179).

This step requires teachers to determine whether strategies they have used in the past are supported in research and challenges them to adopt new and more effective strategies. As trust develops within teams, the teachers become more open to trying new strategies and reporting the outcomes to their colleagues.

Step 2 (Select) in Action

Following the meeting with the math teachers, Principal Tate asks the literacy and math coaches to confer to develop a plan for professional development that builds math teachers' capacity to provide effective instructional strategies on identified standards and learning objectives. The previous meeting with the teachers has provided valuable information about specific areas in which math teachers need a common understanding about what the standards and objectives

require of students. The coaches are also becoming increasingly aware of teachers' pedagogical needs and how they can help increase teachers' instructional effectiveness in these areas.

The coaches examine the district's benchmark assessments to see how students are tested on the objectives throughout the school year. They discover a major discrepancy between the demands of the state assessment and how students are tested quarterly on local benchmarks. They set a date to discuss this inconsistency with the district's curriculum specialist in order to make needed changes on the local benchmark assessment. The math coach speculates that additional work will need to be done with math teachers to examine how students are tested on weekly or unit tests.

The literacy coach focuses on strategies for teaching key vocabulary terms identified previously by math teachers and makes special note of how (or whether) these terms have been introduced in the district's scope and sequence. She identifies three research-based strategies for teaching key terminology and helping students write cogent explanations for their problem solutions—a proficiency required on the state assessment.

Step 3: Plan

Teachers then collaborate to formally plan a lesson that incorporates selected research-based instructional strategies. They also agree on the type of student work they will collect and share with one another as evidence of student learning, as well as the criteria for measuring proficiency. In collaboration, teachers

- develop a common formal plan outlining the lesson objectives (relevant to the standards), the materials to be used, the procedures, the time frame for the lesson, and the activities in which students will be engaged.

- decide what evidence of student learning will be collected during the implementation (Cowan et al., 2008, p. 179).

Planning the lesson collaboratively is a critical feature of the PTLC. Through this process, teachers use their collective knowledge and experience to design a lesson that everyone understands and feels comfortable teaching, to formulate one or more measures of proficiency, and to identify common student work to collect across classrooms as evidence of learning.

Step 3 (Plan) in Action

The math teachers at each grade level then meet to develop a common lesson that they agree to teach within a specified period of time. They decide to use one of the new vocabulary strategies they learned from the literacy coach.

Teachers first identify the major objectives of the lesson that are critical to student proficiency in the standard and write these down. They also decide on the assessment strategy they will use to determine the effectiveness of the lesson and formulate a simple rubric for judging student proficiency on key aspects of the assignment. They discuss the student work they will bring back to the group once everyone has taught the lesson.

Because the concept they are teaching will require 4 days of instruction, the teachers expand the agreed-on lesson to this longer time frame and decide on two informal assessments and one formal assessment as evidence of lesson effectiveness to bring back to the group for close examination.

Step 4: Implement

Teachers then teach the planned lesson, make note of successes and challenges, and collect evidence of student work. They

- deliver the lesson as planned within the specified time period.
- record results, especially noting where students struggled and/or where instruction did not achieve expected outcomes.
- collect the agreed-on evidence of student learning to take back to the collaborative planning team (Cowan et al., 2008, p. 179).

This step places the teacher in the role of an action researcher who collects data that reveal successes and challenges in the lesson. This process encourages active reflection to promote ongoing self-assessment and internal dialogue about the lesson as it was planned and presented.

Step 4 (Implement) in Action

Using the series of lesson plans developed together, the math teachers return to their classrooms and teach the lessons. During the lesson they note specific areas their students find particularly challenging or easy and record them. These notes will be useful when student work is examined in Step 5. The teachers use collaboratively developed informal and formal assessments and collect student work from these assessments.

Step 5: Analyze

In this step, teachers meet to examine the student work collected to serve as evidence of student understanding of the standards. Teachers work together to

- revisit and familiarize themselves with the targeted standards before analyzing student work.
- analyze a sampling of student work for evidence of student learning.
- discuss whether students have met the expectations outlined in the standards and make inferences about the strengths, weaknesses, and implications of instruction.
- identify what students know and what skills or knowledge needs to be strengthened in future lessons (Cowan et al., 2008, pp. 179-180).

The most important aspect of this step is the dialogue that occurs about lesson effectiveness as reflected in the student work. Whether conducted through formal or informal processes, the focus of examination is not on teacher evaluation, but rather on lesson effectiveness.

Step 5 (Analyze) in Action

At the specified time, the math teachers come back together to examine samples of student work. The math and literacy coaches also attend this meeting, primarily to lead the discussion and ask probing questions as teachers are learning the process. The literacy coach listens for indicators that teachers have provided a sound foundation on essential vocabulary for the lesson. The math coach is interested in hearing teacher perspectives about how the student work enhances development of critical math concepts and reflects effective pedagogy.

Although coaches are prepared to lead the discussion in the initial meetings, they realize that their presence at every meeting in the future will not be so essential as teachers become more adept in the process of analyzing student work.

The coaches have the math teachers shield the student's name from view on his or her work—by simply folding back the top of the paper. This helps prevent preconceived notions about individual student competency based on past achievement or other factors from creeping into the assessment of the work.

The math teachers next combine the student work from all the math teachers into one stack of papers. The coaches have the teachers review the objectives of the lesson as specified in Step 3. They also refer to the rubric they developed to ensure that indicators of proficiency are still appropriate. The teachers review each piece of student work together and place it into one of three stacks: (a) those who excelled in meeting all the learning objectives; (b) those who are proficient in most of the learning objectives; and (c) those who are clearly off the mark in meeting the learning objectives. The coaches help prevent the conversation from drifting toward factors other than the work that is before the teachers.

Then, looking at each stack, the teachers identify the overall characteristics that are reflected in each of the three stacks and what elements of the commonly planned lesson might have influenced the student learning results. Teachers may want to speculate about anything that occurred in their classroom during the lesson that might have influenced results.

The teachers also examine each stack for any trends or patterns in strengths and errors and discuss what it would take to move student work in that stack to the next level. Although the focus of the conversation is on lesson effectiveness, the teachers realize they can use information in these stacks to group students for enrichment or additional instruction.

Step 6: Adjust

In this step, teachers reflect on the implications arising from the analysis of student work. They discuss alternative instructional strategies or modifications to the original strategy that may better promote student learning. In collaboration, teachers

- reflect on their common or disparate teaching experiences.
- consider and identify alternative instructional strategies for future instruction.
- refine and improve the lesson.
- determine when the instructional modifications will take place, what can be built into subsequent lessons, and what needs an additional targeted lesson (Cowan et al., 2008, p. 180).

Instruction is constantly evolving in this step as teachers design the most effective lessons possible. Follow-up instruction also becomes very strategic in nature as decisions are made about which students need additional instruction and how this instruction should be provided.

Step 6 (Adjust) in Action

The math and literacy coaches next guide the conversation toward possible changes that could be made in the lesson to increase its effectiveness. They also help the teachers see where small groups of students might be formed for immediate instruction on critical aspects of the learning objectives that were missed. In addition, they help the teachers plan how to integrate the missed objectives into future lessons. These measures increase the efficiency of the instructional program by targeting specific learning needs of students and reducing the number of students who need additional instruction. Throughout this process, the coaches communicate with Principal Tate and make recommendations for ways to continue to support teacher effectiveness.

The PTLC provides an ongoing, job-embedded strategy for increasing the alignment of instruction and assessment to state standards and local curriculum. It also provides a strategy for promoting a community of professional learners by fostering effective collaboration that promotes collective learning and shared personal practice. Furthermore, this process offers a means to focus professional development to provide continual support and assistance in building teachers' content and pedagogical knowledge and skills.

LEADERSHIP ROLES TO SUPPORT IMPLEMENTATION OF THE PROFESSIONAL TEACHING AND LEARNING CYCLE

Although the PTLC relates to the PLC dimensions of collective learning and application and shared personal practice, with a primary focus on classroom practice, responsibility for effective teaching is not limited to the classroom level. The PTLC requires ongoing collegial interactions and leadership support from district staff, principals, instructional coaches, and content specialists, particularly as teachers are learning to engage in this strategy.

Three essential leadership responsibilities are described below (Cowan et al., 2008).

Communicating Clear Expectations

Leaders communicate their own commitment to the implementation of the PTLC in what they say and do. Through words and actions, they communicate expectations that all staff will participate in the PTLC process and use it as a strategy to provide effective learning opportunities for students and build healthy professional relationships with their colleagues.

Building Capacity

In implementing the PTLC, leaders become more aware of staff members who need support and offer that support on a timely basis. They provide resources, such as time for collaboration, and support from instructional coaches and content specialists as needed. They become active in selection and participation in professional development to increase teacher capacity to deliver effective instruction and assess student progress appropriately.

Monitoring and Reviewing

Leaders consistently monitor the effectiveness of collaboration occurring within teams and intervene when needed by asking reflective questions, providing needed resources, and maintaining the focus on instructional improvement. They frequently and regularly monitor classroom instruction to determine whether research-based strategies are being used and their effect on student engagement.

BENEFITS OF THE PROFESSIONAL TEACHING AND LEARNING CYCLE

As a process for promoting the development of a PLC through alignment of the written, taught, and tested curriculum, the PTLC represents a practical and viable strategy for collaboration on teaching and learning, job-embedded professional development that impacts classroom practice, and leadership for the improvement of teaching and learning (Huie, Buttram, Deviney, Murphy, & Ramos, 2004). Explanations of each of these important strategies follow.

Collaboration on Teaching and Learning

Through collaboration on teaching and learning, the PTLC helps tear down territorial walls that prevent teachers from admitting their challenges and using their colleagues' expertise. Such

collaboration fosters a clear sense of shared purpose and helps define roles and responsibilities. Teachers share and solve problems more readily and thereby become more certain and transparent about their practice. Interactions of this nature strengthen instructional program coherence, leading to increased student success.

Although structures for collaboration (e.g., grade-level and departmental groups) alone are not sufficient, they are very helping in providing conditions under which authentic dialogue about teaching and learning can be realized. Perhaps even more important are norms of collaboration and collegiality that have a powerful effect on the quality and depth of such interactions (Tschannen-Moran, 2004).

As teachers gain experience and skill in collaboration through the PTLC, the quality of professional conversations substantially improves.

Professional Development that Impacts Classroom Practice

Change efforts that do little or nothing to affect what occurs in classrooms will have little or no effect on student achievement. A number of leading researchers (Fullan, 2007; Knapp, 2003; Richardson & Placier, 2001) propose that collaborative curriculum development and assessment of student work is a meaningful process that helps teachers improve practice.

All of this suggests that implementing the PTLC is a viable strategy for ongoing, job-embedded professional development and that districts and schools, operating as learning communities, need to make adult learning a prerequisite to student learning (Tobia, 2007).

Knapp (2003) identifies the following essential themes in professional development that are likely to deepen teachers' knowledge and skill *and* lead to application of this knowledge and skill in the classrooms:

- Challenging teachers intellectually with powerful images of teaching and learning.
- Engaging teachers as active learners and offering concrete images of what high-quality practice looks like while taking them more deeply into the content they are teaching and how learners acquire it.
- Reinforcing teacher learning over time through repeated and varied exposure to ideas and through interactions with colleagues, who can act as a resource.
- Offering teachers ways to address the specific problems they face, including the demands and pressures placed on them by state and local reform expectations.

Leadership for the Improvement of Teaching and Learning

District and school leaders are now called on to create conditions in which educational professionals work together toward common goals, learn and apply research-based practices, and improve teaching and learning.

Leaders are also called on to nurture collaboration within and between multiple levels of the system and ensure that professional learning, collegiality, respect, and trust become part of the system's culture (Bryk & Schneider, 2003; Tobia, 2007; Tschannen-Moran, 2004).

Although teachers ultimately determine what is learned at the classroom level, principals in high-performing schools help provide strong leadership and supportive conditions for learning (McEwan, 2003; National Association of Elementary School Principals, 2001). School leadership is central to conditions that support teacher learning (Barth, 2006; Cotton, 2003; Mitchell & Sackney, 2001).

Leaders must become champions of an improvement process that requires everyone to view themselves as leaders and learners. In so doing, the school as a whole develops as a learning organization—a culture where people see themselves connected to each other and the world, where creative thinking is nurtured, and "where people are continually learning how to learn together" (Senge, 1990, p. 3).

SUMMARY

Using the PTLC as a strategy for promoting alignment of the written, taught, and tested curriculum also provides a means to develop a PLC in a school. Adopting a systemic approach to this end within a district becomes even more powerful in ensuring more than isolated *pockets* of improvement. Acknowledging the interdependent nature of systemic improvement calls for concerted change at the district, school, and classroom levels and a sharper definition of leaders' roles at all levels of the system in ensuring effective instruction. Such changes, however, need to occur within a culture of collegiality, collaboration, and continuous improvement so that all classrooms in all schools within a district are bound together with a common goal: to ensure learning experiences of the highest order for all students.

References

Airasian, P. W. (2004). *Classroom assessment: Concepts and applications*. Boston: McGraw-Hill.

Barth, R. (2006). Improving relationships within the schoolhouse. *Educational Leadership, 63*(6), 8-13.

Bryk, A., & Schneider, B. (2003). Trust in schools: A core resource for school reform. *Educational Leadership, 60*(6), 40-45.

Cawelti, G. (2004). A synthesis of research on high-performing school systems. In G. Cawelti (Ed.), *Handbook of research on improving student achievement* (3rd ed., pp. 10-24). Arlington, VA: Educational Research Service.

Cotton, K. (2003). *Principals and student achievement: What the research says*. Alexandria, VA: Association for Supervision and Curriculum Development.

Cowan, D., Joyner, S., & Beckwith, S. (2008). *Working Systemically in action: A guide for facilitators*. Austin, TX: SEDL.

Cowan, D. F. (2003). The PLC connection to school improvement. In J. B. Huffman & K. K. Hipp (Eds.), *Reculturing schools as professional learning communities* (pp. 75-82). Lanham, MD: Scarecrow Education.

Cowan, D. F. (2006). Creating learning communities in low-performing sites: A systemic approach to alignment. *Journal of School Leadership, 16*, 596-610.

Fullan, M. (2007). *The new meaning of educational change* (4th ed). New York: Teachers College Press.

Hord, S. M., & Sommers, W. A. (2008). *Leading professional learning communities: Voices from research and practice*. Thousand Oaks, CA: Corwin.

Huie, S. B., Buttram, J. L., Deviney, F. P., Murphy, K. M., & Ramos, M. A. (2004). *Alignment in SEDL's Working Systemically model*. Austin, TX: Southwest Educational Development Laboratory.

Kannapel, P. J., & Clements, S. K. (2005). *Inside the black box of high-performing high-poverty schools*. Lexington, KY: Prichard Committee for Academic Excellence.

Knapp, M. S. (2003). Professional development as a policy pathway. In R. E. Floden (Ed.), *Review of research in education*. Washington, DC: American Educational Research Association.

Marzano, R. J. (2003). *What works in schools: Translating research into action*. Alexandria, VA: Association for Supervision and Curriculum Development.

McEwan, E. K. (2003). *Seven steps to effective instructional leadership*. Thousand Oaks, CA: Corwin Press.

Mitchell, C., & Sackney, L. (2001, April). Communities of leaders: Developing leadership capacity for a learning community. Paper presented at the annual meeting of the American Educational Research Association, Seattle, WA.

National Association of Elementary School Principals. (2001). *Leading learning communities: Standards for what principals should know and be able to do*. Alexandria, VA: Author.

Pankake, A. M., & Moller, G. (2003). Overview of professional learning communities. In J. B. Huffman & K. K. Hipp (Eds.), *Reculturing schools as professional learning communities* (pp. 3-14). Lanham, MD: Scarecrow Education.

Richardson, V., & Placier, P. (1991). Teacher change. In V. Richardson (Ed.), *Handbook of research on teaching* (4th ed., pp. 905-947). Washington, DC: American Educational Research Association.

Senge, P. M. (1990). *The fifth discipline: The art and practice of the learning organization*. New York: Currency/Doubleday.

Tobia, E. (2007, April). The Professional Teaching and Learning Cycle: Implementing a standards-based approach to professional development. *SEDL Letter, 19*(1), 11-15.

Tschannen-Moran, M. (2004). *Trust matters: Leadership for successful schools*. San Francisco: Jossey-Bass.

Figure 1: Professional Teaching and Learning Cycle