In this issue of Language Arts, the editors asked authors to consider how teachers develop their knowledge and pedagogy in the midst of rapidly changing technologies. Specifically, they raise the question, What types of professional development are most useful to inservice teachers as they consider issues relating to multiple literacies, digital literacies, and the literacy heritages of children from diverse backgrounds and with diverse ways of making meaning?

Current professional development (PD) often does not effectively support teachers in transforming their instruction (Crawford, 2011). One-shot workshops—“professional development” days with little direct connection to classrooms, coaching support, or follow-up—often have minimal impact on teachers (Jaquith, Mindich, Wei, & Darling-Hammond, 2011). However, research has provided insights into high-quality PD. Effective PD works flexibly around teachers’ busy schedules, provides sustained follow-up, includes ongoing coaching, engages teachers in active learning experiences with teaching methods, focuses on integration with specific subject-matter content, involves reflection on instruction and beliefs, fosters collaboration with colleagues, and examines the impact of instruction on student outcomes (Jaquith, Mindich, Wei, & Darling-Hammond, 2011; Larson, 2005; Ross, 2011). For example, elementary teachers who received ongoing coaching on the teaching of reading outperformed teachers in both adoption of new instruction and student achievement compared to teachers who just participated in a workshop (Sailors & Price, 2010).

I argue here that as classrooms change and as students bring more digital capabilities and sensibilities to school than ever before, our PD mechanisms also need to change in ways that not only improve PD, but also enhance the use of digital tools in the classroom. That is, to grow their teaching of digital literacies, teachers can capitalize on the affordances of digital tools and social networking capabilities to collaborate, plan with, and learn from other teachers in their own school, as well as teachers in other schools across the country who are asking the same kinds of questions. There are multiple ways to learn about digital tools: first, use them (as several of the articles in this issue describe); second, be in conversations with other teachers who are making these same sorts of decisions in their classrooms; third, work together as a school toward integrating digital tools into classrooms.

The Use of Professional Learning Communities

One approach designed to foster effective PD involves the use of professional learning communities (PLCs). PLCs consist of teachers working collaboratively within a school to support each other through shared planning and curriculum development, accessing resources within and outside the school and providing feedback or coaching for teachers (DuFour, DuFour, Eaker, & Many, 2006; Easton, 2011).

An essential feature of PLCs is that all teachers and administrators in a school are engaged in collective inquiry and/or action research to address questions related to improving student learning throughout their school (DuFour et al., 2006). To do so, teachers collaborate on new teaching methods, and then examine examples of student work to determine whether and how these methods serve to improve
student learning (Venables, 2011). (For more information on PLCs, see the All Things PLC website at http://www.allthingsplc.info.) As one example, an entire school may examine the benefits of using blogs, wikis, or online discussions across the curriculum to support students in formulating their own ideas about subject-matter topics. Or teachers may collaboratively address issues of student participation, engagement, and work; power and control in school policies; cultural diversity; or community needs (Easton, 2011; Herr & Anderson, 2008).

Creating Online Professional Learning Communities

A major challenge for busy teachers adopting PLCs is the lack of time for face-to-face meetings where they can engage in extensive collaboration. One way to address this challenge is through online collaboration using digital tools for problem solving, planning, curriculum development, assessment, and reflection (Dede, 2006; Ross, 2011). Because PLCs depend upon regular interaction with colleagues, often around shared lesson plans or student work, it makes sense to take advantage of online social networking’s great potential for facilitating such interaction.

Participating in an online PLC and recognizing how digital tools enhance their own learning, teachers may begin to consider the value of using these digital tools to foster their students’ learning. Further, online PLCs can focus their joint inquiry on digital integration within their school, leading to even more possibilities for changing classrooms to enhance student learning. In one study, teachers’ use of an online PLC resulted in their becoming more comfortable with and knowledgeable about technology integration. In addition, their collaboration culminated in a shift from teacher-centered to student-centered instruction, and that shift, in turn, resulted in increased student engagement (Cituentes, Maxwell, & Bulu, 2011).

In this column, I describe the use of four major components of an online PLC:

- a central social networking/discussion forum for teacher collaboration
- teachers’ personal learning networks (PLNs)
- students’ online work collected in blogs, wikis, podcasts, or e-portfolios
- a schoolwide online curriculum repository containing lesson plans and units addressing standards

As Figure 1 illustrates, teachers using these four interconnected components of an online PLC can engage with online social networking tools to facilitate online collaboration and interaction with colleagues, thus creating a central “learning commons” (Baker-Doyle, 2011; Kear, 2010; Koehler, Luhtala, & Loertscher, 2011). A learning commons

![Figure 1](Image)

**Figure 1.** The interconnected components of a Professional Learning Community (PLC)

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Creating Online PLCs Using Course Management or Social Networking Tools

To create a central online forum for sharing their ideas, teachers can employ course management systems such as Ning, Blackboard, Moodle, Desire2learn, EDU 2.0, Edmodo, or Tappedin.org, as well as social networking tools such as Facebook or Google+. These virtual environments allow teachers to share resources, ask questions, and collaborate with others in both asynchronous and synchronous (real-time) chats. For example, teachers can use Google+ to create a “circle” consisting of only their colleagues for sharing ideas on an asynchronous forum; they can also try Hangout, a synchronous video chat tool in Google+.

These online conversations are more productive when teachers are comfortable sharing their
Can Online Learning Communities Foster Professional Development?

Ideas and are addressing topics based on their specific needs and concerns (Vavasseur & MacGregor, 2008). Teachers also need to publicly share their beliefs about their teaching, and to challenging their colleagues’ beliefs in ways that may lead to a change in beliefs about effective instruction (Prestridge, 2010; Voogt, et al., 2011). Collaboratively sharing their beliefs leads teachers to construct a shared vision for how they perceive student efficacy and success, as well as a shared recognition that the entire school community is responsible for ensuring that all students succeed (Takahashi, 2011). Such conversations are more likely to occur with facilitators who encourage perspective taking, define norms and expectations, model appropriate communications, foster substantive interaction, provide relevant resources, and define roles and responsibilities for collaborative work (Ross, 2011).

Individual Teachers’ Personal Learning Networks (PLNs)

Successful professional development can foster individual teachers on a path of learning that lasts an entire career. It is now easier for teachers to inspire, inform, and challenge one another by sharing these paths of learning using online personal learning networks (PLNs) designed to provide them with current resources. Teachers build these online PLNs by subscribing to professional learning sites, blogs/Twitter, wikis, podcasts, social bookmarking sites, and online videos to acquire and share ideas and resources (Baker-Doyle, 2011; Richardson & Mancabelli, 2011). For a list of relevant sites, see the “Collaborative Online Sites” sidebar (p. 258).

In order to thoughtfully use these resources to grow as professionals, teachers have to engage in reflection as they try out new ideas and practices. To foster such reflection in a systematic manner, teachers can create e-portfolios using commercial e-portfolio platforms or blogs, wikis, or websites. By collecting and reflecting on examples of student work in their e-portfolios, teachers can determine the impact of their instruction on student learning, entertain and plan alternative teaching methods, reflect on their beliefs about teaching, and apply their experiences to the use of e-portfolios with their students (Cambridge, Cambridge, & Yancey, 2009; Stansberry & Kymes, 2007). Teachers can then share these e-portfolio reflections on the PLC forum sites with colleagues, as well as inviting colleagues to provide feedback to their e-portfolios. Novice teachers receiving that kind of feedback from veteran mentors, for example, could benefit from this more experienced perspective on their students’ work.

Teachers can also share video portfolios of their teaching on a PLC forum. They can then use video annotations tools, such as VideoAnt (http://ant.umn.edu) or YouTube Annotations, or screen-casting tools, such as Jing (http://www.jingproject.com) or ScreenFlow (http://www.telestream.net/screen-flow/overview.htm), to provide feedback to these videos, feedback that can foster improvements in their teaching (Heintz, Borsheim, Caughlan, Juzwik, & Sherry, 2010).

Online Student Work

Another essential component of an online PLC involves formative analysis of student work to determine the effectiveness of instruction in fostering learning (DuFour, et al., 2006; Easton, 2011). By collecting and storing student work from classes across the curriculum in an online repository, teachers can collaboratively analyze changes in the quality of that work as well as identify students who may need more assistance. And, by analyzing changes in students’ work over time using e-portfolios, teachers can identify how their use of certain instruction may have contributed to these changes.

Further, having the same student work accessible to different teachers allows for alternative perspectives on their work, reasons for issues in their work, and recommendations for changes in instruction. Teachers can then provide students with a network of alternative perspectives on the texts they have produced, as was the case when students in two Ohio high schools received feedback to their e-portfolios from both high school and college instructors (Acker & Halasek, 2008).
School Curriculum Repository

Another component of the PLC involves teachers sharing their curriculum in a schoolwide online curriculum repository so that all teachers are familiar with what students are studying in their school. By doing so, teachers get a stronger sense of their curriculum’s scope-and-sequence, and become familiar with the background curricular experiences their new students are bringing to their classes. Also, in reviewing others’ curriculum, they can provide suggestions for resources and activities consistent with their school’s standards. In addition, they can identify connections between course/unit topics across different courses, leading to more interdisciplinary instruction.

Planning and Creating a Digital PLC

Creating an online PLC requires a sustained, long-term commitment by all teachers and administrators in a school (Dede, 2006; Kear, 2010; Ross, 2011). To create a schoolwide, digital PLC, Richardson and Mancabelli (2011) recommend engaging in an extensive planning process. This process begins with convincing all teachers of the value of using digital tools for enhancing teacher collaboration. This could include consulting research related to establishing an online PLC; see the sidebar below for more information.

Richardson and Mancabelli (2011) then recommend establishing a change team of selected

RESEARCH-BASED PRACTICES TO SUPPORT ONLINE PLCs

The research reviewed in this column suggests the value of using digital tools to support online PLCs as well as the work of preservice/inservice teachers in methods courses. The additional research cited below can be used to justify the uses of these digital tools to foster collaborative sharing of teaching ideas, student work, and reflection on the success of teaching practices.

Use of discussion forums, social networking, and video conferencing fosters teachers’ online networking for sharing teaching ideas and providing feedback to one another's ideas.


Professional development that helps teachers define purposes for using digital tools allows them to integrate those digital tools into their instruction.


Participation in online professional development, organized around peer-discussions of content and teaching practice, has a positive effect on teachers’ knowledge and practice.

teachers, administrators, staff, parents, community members, and students within a school, particularly those people who are committed to change and who are already employing digital tools. This change team develops a plan for using strategically chosen digital tools to support their PLC in order to pursue some key learning goals.

Based on this plan, a select group of teachers then participates in a year-long pilot involving uses of and reflections on digital tools for collaborative sharing (for examples of uses of these tools, go to http://go.solution-tree.com/technology/Reproducibles_PLN.html). For example, members of the team could reflect on how teachers can draw on their own PLNs to provide useful resources and collaboration. The group can also make recommendations about how to set aside time for teachers to work together, recognize variations in teacher computer skills, seek out resources from and/or build partnerships with groups outside the school, and provide needed technology support and hardware.

In conclusion, creating an effective online PLC certainly requires more than simply sharing work online. It also requires extensive face-to-face social interaction complemented by the use of digital tools to do meaningful and important social work. All of this reflects the research on technology integration—what’s important is not the digital tools per se, but how digital tools are being used to foster learning. In this case, the use of digital tools in online PLCs can improve the quality of teaching and learning.

Preservice and inservice teachers learn to employ digital tools through engaging in collaborative construction of digital texts with their students.


Professional education that fosters teachers’ active engagement in uses of digital tools enhances their “technological pedagogical content knowledge” (TPCK) and facilitates transfer to the classroom.


Uses of e-portfolios providing teachers with student work can result in improvement in student achievement.


Expanding repositories of student work to include texting with students and communication with parents enhances students’ sense that their teachers and parents care about their success in school.

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