

Job-Embedded Professional Development:

What It Is, Who Is Responsible, and How to Get It Done Well



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Contents

	Page
Introduction	1
What Is Job-Embedded Professional Development?	2
What Are the Necessary Conditions for High-Quality Job-Embedded Professional Development?	8
Teacher Opportunity to Learn	8
Professional Learning in a Community and as a Community	9
Facilitator Skills	9
How Can State, District, and School Leaders Support High-Quality Job-Embedded Professional Development?	10
State Leaders	10
District Leaders	11
School Leaders	12
Conclusion	13
References	14

Introduction

Featured prominently in recent federal education regulations, the term *job-embedded professional development* has come into increasingly common usage for more than a decade, yet rarely is it explicitly defined. For example, the School Improvement Fund regulations (U.S. Department of Education, 2010b), the State Fiscal Stabilization Fund (SFSF) guidelines (U.S. Department of Education, 2009c), and the Race to the Top grant application (U.S. Department of Education, 2010a) all make reference to this type of professional development but do not provide concrete examples. In addition, guidance for using American Recovery and Reinvestment Act funds to support Individuals with Disabilities Education Act (IDEA) Part B and Title I activities encourages the implementation of job-embedded professional development in high-need schools (U.S. Department of Education, 2009a; U.S. Department of Education, 2009b). The National Staff Development Council (2010) also emphasizes the importance of school-based learning and job-embedded coaching as necessary components of effective professional development.

In response to comments on the SFSF proposed regulations regarding job-embedded professional development, U.S. Department of Education officials explained their reasoning:

We believe that the requirement to provide ongoing, high quality, job-embedded professional development to staff in a school is clearly tied to improving instruction in multiple ways. First, the requirement that professional development be “job-embedded” connotes a direct connection between a teacher’s work in the classroom and the professional development the teacher receives. (National Archives and Records Administration, 2009, p. 58479)

But what exactly is job-embedded professional development? What types of teacher learning opportunities count as being job embedded? How might job-embedded professional development improve teaching practices and student learning outcomes? What does the research say about it, and how can states and districts implement it well? In this Issue Brief—written in collaboration with the Mid-Atlantic Comprehensive Center and the National Staff Development Council—the National Comprehensive Center for Teacher Quality (TQ Center) intends to answer these important questions with a focus on job-embedded professional development for teachers only (not for other educators such as principals).

What Is Job-Embedded Professional Development?

Job-embedded professional development (JEPD) refers to teacher learning that is grounded in day-to-day teaching practice and is designed to enhance teachers' content-specific instructional practices with the intent of improving student learning (Darling-Hammond & McLaughlin, 1995; Hirsh, 2009). It is primarily school or classroom based and is integrated into the workday, consisting of teachers assessing and finding solutions for authentic and immediate problems of practice as part of a cycle of continuous improvement (Hawley & Valli, 1999; National Staff Development Council, 2010). JEPD is a shared, ongoing process that is locally rooted and makes a direct connection between learning and application in daily practice, thereby requiring active teacher involvement in cooperative, inquiry-based work (Hawley & Valli, 1999). High-quality JEPD also is aligned with state standards for student academic achievement and any related local educational agency and school improvement goals (Hirsh, 2009).

Table 1 provides some examples of job-embedded professional development that can be undertaken alone, with one-on-one guidance, and in teams. Note that JEPD varies in the extent to which it is more or less situated inside classrooms and schools. The types of professional development included in the far-right column of Table 1 may be very valuable learning opportunities for teachers; however, because they are not focused on the immediate work of teaching the students to whom the teachers are assigned, they are not considered job embedded.

Table 1. Examples in a Range of Job-Embedded Learning Opportunities

Job-Embedded			Not Job-Embedded
Alone	Takes place in the classroom, in real time, with current students, and is centered on issues of actual practice	Takes place in the classroom, nearly real time, away from students, and is centered on issues of actual practice	Takes place in the school, shortly before or after instruction, away from students, and is centered on issues of actual practice
	Takes place in or outside the school, removed from instruction, away from students, and is centered on issues of likely practice		
With One-on-One Guidance	—	—	<p>A teacher analyzes the work of two focus students and writes about it for his portfolio.</p> <p>A teacher reads about a reading strategy in a professional journal and applies it in her classroom. She reflects on her experience and blogs about it in her online journal.</p>
	<p>During a struggling teacher's mathematics lesson, an instructional coach observes the teacher and interacts with both the teacher and the students, providing useful questions and clarification of teacher directions during the lesson as appropriate. (Prior to the lesson, the coach discussed this approach with the teacher and was invited to jump in as needed.)</p> <p>A mentor, watching a beginning teacher implement a lesson on a closed-loop video link provides real-time guidance to the teacher via a headphone.</p>	<p>A mentor conferences with a beginning teacher during the planning of and after observing a lesson. She supports the teacher in describing the strengths and weaknesses in his instructional planning and implementation, prompting him to incorporate changes in his instruction the following day.</p>	<p>A teacher and her coach meet to review a lesson the coach observed the day before; they discuss how to better manage the students' small-group work, and the teacher agrees to try these new strategies.</p> <p>A teacher e-mails a video clip of his instruction to his "virtual tutor"—a university faculty member in another state. In a video conference, the teacher and tutor discuss the clip, identifying what worked and what could be improved.</p>

Job-Embedded				Not Job-Embedded
In Teams	Takes place in the classroom, in real time, with current students, and is centered on issues of actual practice	Takes place in the classroom, nearly real time, away from students, and is centered on issues of actual practice	Takes place in the school, shortly before or after instruction, away from students, and is centered on issues of actual practice	Takes place in or outside the school, removed from instruction, away from students, and is centered on issues of likely practice
	An instructional facilitator conducts a demonstration lesson. A group of teachers observe the lesson and take notes describing and analyzing what they see. During small-group work, the teachers talk with students about what they are learning. Just after the students leave, the teachers discuss the specific teaching techniques the facilitator used during the lesson as she assessed students' understanding through questioning.	Fourth-grade teachers meet with a lesson study facilitator to develop a science lesson they all plan to implement the following week. One teacher volunteers to implement it in his classroom first while the other fourth-grade teachers observe how it goes. After the observation, the teachers adjust their lesson plans based on what they learned and consider applications for other lessons.	In their professional learning community, teachers analyze their students' test scores and discuss needed changes to their instruction as well as needs for additional support and resources. During her planning period, a teacher posts a question to her state-sponsored online learning community about her students' continued failure to learn how to multiply fractions. Several teachers from across the state offer strategies and resources. The teacher tries to implement their suggestions, posts her experience to the online community later that day, and receives additional feedback.	During the teachers' monthly faculty meeting, an instructional leader describes the research on various classroom management techniques. Middle school mathematics teachers attend a two-week summer institute at a university to develop their knowledge of algebra and algebra instruction. As part of the course, they work one-on-one with summer school students to practice what they are learning.

The description of JEPD provided in this Issue Brief is very closely aligned with the reform-oriented professional development described in the literature (Ball & Cohen, 1999; Darling-Hammond & McLaughlin, 1995; Desimone, Porter, Garet, Yoon, & Birman, 2002; Peneul, Fishman, Yamaguchi, & Gallagher, 2007; Yoon, Duncan, Lee, Scarloss, & Shapley, 2007). Some examples of reform-based professional development can occur outside of schools. In JEPD, however, teachers learn in the course of their school day, so JEPD is reform-based professional development in which the majority of teacher learning takes place in schools. It is professional development situated *in* schools that is always *about* the current work of schools.

Although JEPD can be undertaken by a teacher alone, a view of professional knowledge as social, situated, and distributed among colleagues undergirds JEPD (Putnam & Borko, 2000). In other words, in JEPD, teachers' professional development is largely a product of formal and informal social interactions among the teachers, situated in the context of their school and the classrooms in which they teach and distributed across the entire staff. If implemented and supported effectively, JEPD has the potential to contribute to the development of all teachers within a team or school by generating conversations among teachers about concrete acts of teaching and student learning (Wei, Darling-Hammond, Andree, Richardson, & Orphanos, 2009).

In JEPD, teachers primarily draw from the professional knowledge that exists in their own school and among their colleagues (Wei et al., 2009), which is informed by other professional development opportunities that help teachers learn research-based practices (Killion & Roy, 2009; Lieberman, 2000). JEPD may consist of departmental, cross-departmental, grade-level, or "vertical" (i.e., across grade levels) teams of teachers engaging in "interactive, integrative, practical, and results-oriented" work (Fogarty & Pete, 2009, p. 32). Activities include designs such as mentoring; coaching; lesson study; action research; peer observation; examining student work; and virtual coaching, which consists of teachers using a "virtual bug-in-ear" technology to receive feedback from a coaching teacher during real-time instruction (Rock, Gregg, Gable, & Zigmond, 2009). Professional learning communities (i.e., structured time for teachers to come together and discuss issues of teaching practice and student learning) can be forums for job-embedded professional development.

Table 2 briefly describes the formats in which JEPD can occur; these professional development processes become JEPD if they meet the definition indicated on page 2 of this Issue Brief. The closer the learning activity is to the actual work of teachers in classrooms with their current students, the more job embedded it is.

Table 2. Formats for Job-Embedded Professional Development and Related Research Findings

<p>Action Research. Teachers select an aspect of their teaching to systematically investigate, such as their wait time during questioning. They record data and consider theories from the research literature, drawing conclusions about how teaching is influencing learning and vice versa, and informing future instructional decisions. The primary intent of action research is to improve the teachers' immediate classroom teaching; secondarily, if applicable, the intent is to generalize it across other contexts in the school or beyond (Cochran-Smith & Lytle, 1990)</p>
<p>Case Discussions. Case discussions allow teachers to have a more critical analysis of teaching because they are not in the act itself (LeFevre, 2004). Formats vary from written to video to multimedia, with varying controls over content to match the purpose of the case study—for example, an exemplar of teaching decisions—or to reveal student thinking or missed opportunity. One strength of video case discussions, in particular, is the opportunity to analyze student thinking at a deep level (Sherin & Han, 2004; van Es & Sherin, 2008). Case discussions, when they take place among a school's faculty and are situated in actual practice, are a process for JEPD.</p>
<p>Coaching. Coaching differs from mentoring in its focus on the technical aspects of instruction, rather than the larger personal and nonacademic features of teaching (Rowley, 2005). An instructional coach provides ongoing consistent follow-up by way of demonstrations, observations, and conversations with teachers as they implement new strategies and knowledge. Typically, instructional coaches have expertise in the applicable subject area and related teaching strategies. Some coaches continue to teach part-time; some come from the school; and others travel throughout the district, working with teachers. The National Staff Development Council offers multiple resources for instructional coaching, including publications and interactive online tools (http://www.nsd.org).</p>
<p>Critical Friends Groups. Teachers meet and analyze each others' work, including artifacts such as student work, a lesson plan, or assessment. They also may discuss challenges they are facing with presenting the subject matter or with meeting a particular student's needs. See Norman, Golian, and Hooker (2005) for illustrative examples.</p>
<p>Data Teams/Assessment Development. Teachers meet together and analyze results from standardized tests or teacher-created assessments. Together, they formulate what the evidence from the data tells them about student learning and discuss teaching approaches to improve student achievement. Teachers also may work on refining assessments to gather more useful student data.</p>
<p>Examining Student Work/Tuning Protocol. Examining student work enables teachers to develop a common understanding of good work, identify student misconceptions, and evaluate their teaching methods. Through the tuning protocol, teachers share student work (or their assignments and rubrics), describing the context in which the work is used; other teachers ask questions and then provide feedback on how the work may be fine-tuned to improve student learning. See Blythe, Allen, and Powell (1999) and Brown-Easton (1999) for more details.</p>

Implementing Individual Professional Growth/Learning Plans. Alongside an instructional leader such as a master teacher or the principal, or as members of a professional learning community, teachers develop their own professional growth plans in order to understand what professional development opportunities they should engage in, as well as to track their growth in a competency area. They can choose to participate in JEPD to ensure their progress.

Lesson Study. During sessions known as “research lessons,” teachers alternate in preparing a lesson to demonstrate a specific teaching and learning goal (e.g., help a student master a mathematics concept, conduct a peer review of writing within groups). Other teachers observe and document what they see through video, a word processor, or pencil and paper. After the lesson, the teachers meet and discuss the strengths of the lesson and make suggestions for improvement. Sometimes, the lesson is revised and presented again. See Stepanek, Appel, Leong, Mangan, and Mitchell (2006) and Lewis, Perry, and Murata (2006) for practical implications.

Mentoring. Increasingly implemented as part of the induction phase for new teachers, mentoring may develop into coaching or peer support relationships as teachers gain experience. Best practice includes matching teachers of the same content area, establishing common planning time, and structuring time for further collaboration. Mutual observance of classroom teaching is usually included. See Portner (2005) or visit the New Teacher Center website (<http://newteachercenter.org/>) for more information. When situated in a new teacher’s actual classroom practice, mentoring is a process for JEPD.

Portfolios. Teachers assemble lesson plans, student work, reflective writing, and other materials that are used to prepare for teaching or are used directly in the classroom. This body of work can be used to track a teacher’s development in a competency area or for reference by other teachers. Teachers also report that developing a portfolio is a powerful learning activity as they reflect on their teaching practice in light of standards (Gearhart & Osmundson, 2009). Presenting one’s portfolio to a group of one’s peers or meeting with a coach can make portfolios a powerful venue for JEPD.

Professional Learning Communities. Teachers collaborate to analyze their practice and discuss new strategies and tactics, testing them in the classroom and reporting the results to each other. Hord (1997) lists five attributes of effective professional learning communities: supportive and shared leadership, collective creativity, shared values and vision, supportive conditions, and shared personal practice. Professional learning communities redress teacher isolation, create shared teacher responsibility for all students, and expose teachers to instructional strategies or knowledge they did not have access to previously. Such communities can be a venue for JEPD as well as other forms of reform-based professional development.

Study Groups. In small groups or as a faculty, teachers generate topics for study related to school improvement goals or student data and then read and react to educational research or other literature on teaching and student learning. They engage in structured dialogue or discussion that explores issues deeply and considers the implications for school or classroom practices.

Note. For more information on each of these formats for job-embedded professional development, consult Brown-Easton (2008) and Wei et al. (2009).

What Are the Necessary Conditions for High-Quality Job-Embedded Professional Development?

Much of the research on professional development for teachers is descriptive without causal investigation, making it hard to pinpoint what factors contribute to highly effective JEPD (i.e., JEPD that leads to improved practice, which leads to improved student learning outcomes). Meta-analyses have identified very few studies—out of hundreds—that provide empirically derived support for the positive impact of professional development on student achievement (Blank & de la Alas, 2009; Yoon et al., 2007). Although more rigorous research is needed, including both experimental and nonexperimental research, the existing research base does provide important guidance for the design of high-quality JEPD. (See Penuel et al., 2007, for an example of an empirical study on teacher professional development.)

Teacher Opportunity to Learn

Similar to students as learners, teachers as learners benefit from multiple opportunities to learn. Those opportunities are created when teachers are afforded the time, space, structures, and support to engage in JEPD. District and school administration can provide this support by eliminating excessive paperwork and other noninstructional duties for teachers; coordinating teacher schedules; clarifying goals, outcomes, and priorities of the JEPD; and assisting in collection of valid student and teacher performance measures (Hawley & Valli, 1999).

Moreover, the school's professional culture significantly affects teachers' opportunity to learn. School leaders are instrumental in fostering an organizational culture of continuous learning and teamwork through venues such as professional learning communities and professional norms, including, for example, open-door policies for observing each others' classrooms. In addition, JEPD produces enduring effects when it is matched to the school curriculum, state standards, and assessment of student learning; is compatible with daily school operations; and is framed to address the particular instructional needs of a teacher's given assignment (Blank & de la Alas, 2009; Wei et al., 2009).

Research-based knowledge about how adults learn also should inform the design of any effective professional development effort, particularly JEPD (National Staff Development Council, 2001). Adults learn best when they are self-directed, building new knowledge upon preexisting knowledge, and aware of the relevance and personal significance of what they are learning—grounding theoretical knowledge in actual events (Bransford, Brown, & Cocking, 2000; Knowles, Holton, & Swanson, 1998). Therefore, effective professional development should begin with an analysis of school needs in terms of both student and teacher learning based on formative evidence of their performance. Through an analysis of these data, learning goals can be developed and aligned with JEPD methods. Powerful and practical connections also can be made between district and school improvement plans and JEPD, resulting in greater coherence across the system. These locally based plans show that JEPD is highly conducive to adult learning through its focus on concrete acts of teaching that are highly relevant to teachers while requiring their active participation and construction of professional knowledge.

Professional Learning in a Community and as a Community

Evaluating and solving problems of practice in order to improve a teacher's practice, which is at the heart of JEPD, is usually best accomplished through sustained collaboration in identifying and supporting the implementation of evidence-based instructional practices. Teachers' experiences with collaborative problem solving can be mixed; under some circumstances, it may merely lead to perpetuating existing practice. Done well, however, it holds the power to lead to the building of collective knowledge and expertise as well as a shared understanding of good practice (Hawley & Valli, 1999).

To help ensure positive outcomes of collaboration, researchers suggest providing teachers with guided opportunities to develop their collaborative skills, including conflict resolution, problem-solving strategies, consensus building, and other meeting skills (Hord, Rutherford, Huling-Austin, & Hall, 1998; National Staff Development Council, 2001). While the teachers are congregated together, the disclosure of full expectations—including roles and responsibilities for each teacher—is necessary for successful JEPD (Fogarty & Pete, 2009). The development of norms for collaboration and the use of conversation protocols can benefit all participants in a learning community. Teachers are each others' main resource for professional learning in JEPD, making successful collaboration key to professional growth.

Facilitator Skills

The quality of JEPD depends in significant part on the skills of JEPD facilitators. Facilitators may have a variety of formal roles and titles; they can be principals or assistant principals, mentors, department chairs, instructional coaches, teacher leaders, subject-area specialists, or teachers. In addition to having expertise in instruction, JEPD facilitators also must have effective interpersonal and group-process skills, which can be acquired through targeted professional development. These skills are critical because JEPD facilitators serve as catalysts for professional learning, supporting teachers in conducting inquiries and team collaboration while strengthening the connection of teacher learning to student learning.

JEPD facilitators need to know what excellent teaching would look like for their colleagues in their classrooms while supporting teachers in improving their practice. For example, one strategy consists of a JEPD facilitator teaching an example of a class lesson to colleagues, making explicit the decision-making process during the lesson. Finally, JEPD facilitators themselves should have structured opportunities to learn from educators serving in the same role in other schools or districts to improve the quality of the JEPD they are providing to school faculty. (See West and Saphier, 2009, for a discussion on how districts can support instructional leaders.)

How Can State, District, and School Leaders Support High-Quality Job-Embedded Professional Development?

State Leaders

Working with governors and state legislatures, some state education agencies (SEAs) are developing and implementing plans to ensure that struggling schools have high-quality JEPD for their teachers, principals, and other instructional leaders at the school site. To support the success of that work as well as provide guidance to school districts across the state as they support effective educator learning opportunities, SEA leaders can do the following:

- **Help build a shared vocabulary** around what is meant by job-embedded and professional development through regular communication vehicles (e.g., school leader trainings, website materials, promulgation of professional development standards, monitoring/technical assistance visits). Use this Issue Brief as prereading material for meetings or trainings.
- **Provide technical assistance** to districts for choosing high-quality approaches to JEPD. Promulgate guidance on proper use of funds for JEPD and other forms of high-quality professional development through targeted communication efforts and relationship building.
- **Monitor implementation of JEPD as required by federal grant regulations.** Move beyond compliance monitoring to require the integration of high-quality JEPD in school or district improvement plans to improve student performance in all schools—especially in low-performing schools.
- **Identify successful JEPD practices within the state** that can provide models to other districts and schools.
- **Align teacher licensure and relicensure requirements with high-quality JEPD.** For example, consider building a focus on teacher candidates' readiness to participate in collaborative professional learning into initial licensure requirements. For another example, rather than requiring teachers to obtain continuing education credits or graduate credits that are neither job-embedded nor related to improving teacher effectiveness for relicensure or advanced licensure, instead require teachers to participate in JEPD venues such as individual professional development plans, completion of a high-quality induction program, lesson study, and other pursuits.
- **Build comprehensive data systems to inform decisions about JEPD,** making data available to researchers to advance the field. It is essential to develop and implement record-keeping systems to track the impact of JEPD on teachers' practice and student learning. Such data systems should include, at a minimum, data on teachers' performance, student achievement linked to teachers, types and duration of JEPD utilized by teachers at each school, and teacher retention information.

District Leaders

JEPD development should be a key part of districts' long-term strategic planning for talent development and human capital management. Toward that end, district leaders can do the following:

- **Engage in long-term strategic planning for human capital development** that includes hiring teachers who are prepared to engage in collaborative professional learning and developing effective teachers through thoughtful use of JEPD, while promoting continuous learning for all teachers. Consider making JEPD a part of the district evaluation system, and support principals in the implementation of that system.
- **Work to develop a school culture among teachers in which continued learning is considered an essential aspect of professional practice.** Make this goal a part of the teacher contract, memorandum of understanding, the district's performance system, district employment policies, school handbooks and policies, and similar items.
- **Offer incentives and supports for schools to provide and evaluate** JEPD opportunities for their teachers. This approach should include supporting schools in using data on student performance and current teacher practice to plan for JEPD.
- **Help principals identify effective instructional facilitators** through principal professional development and performance review discussions. Engage principals in JEPD at their schools.
- **Help principals plan and support JEPD implementation**, establishing procedures to support school JEPD facilitators to advance teaching and learning and meet school improvement goals. Monitor implementation of JEPD in school walk-throughs.
- **Help principals align teacher evaluation with JEPD**, providing tools codeveloped with teachers unions, universities, or other educational organizations that support the ability of principals to recognize how teachers might strengthen their practice through participation in JEPD.
- **Help principals provide teacher collaborative learning time** that is common to all teachers, distinct from planning time, and protected from administrative duties. Ensure additional supports for JEPD as well.
- **Create policies that allow teachers to advance as instructional leaders, master teachers, and JEPD facilitators** while continuing to teach students for part of their workday or week.

School Leaders

In raising student achievement, school leaders are only as effective as their faculty. To support the continued learning and effectiveness of teachers, school leaders can do the following:

- **Emphasize the importance of continued learning for all faculty** through effective forms of JEPD.
- **Work to develop a school culture among teachers in which continued learning is considered an essential aspect of professional practice.** Emphasize this goal at faculty meetings, upon hiring new teachers, and during formal and informal meetings with teachers.
- **Identify and support effective instructional facilitators** among the faculty. Provide these facilitators with specific training for collaborating with adults, ongoing resource support, and incentives, so that they can facilitate effective JEPD for their colleagues.
- **Provide common teacher learning time, distinct from planning time.** Release teachers as appropriate to visit other teachers' classrooms, engage in collaborative teaching, and participate in other collaborative activities.
- **Use student performance data** to inform decisions about JEPD.

Creating a system to support high-quality JEPD requires common effort across all three levels: states, districts, and schools. The most successful implementation of JEPD occurs when state, district, and school leaders collaborate to promote a culture of continuous learning for all educators; acknowledge successful teachers and teacher leaders; and connect teacher evaluation and evidence to JEPD. Creating the school culture, support structures, systems, and time is necessary to make JEPD an intrinsic part of each teacher's workday.

Conclusion

Learning to do a complicated job well requires constant scholarship, taking place both in academic classrooms as well as through guided, on-the-job practice. The work of teaching—whether it’s helping a distracted 6-year-old recognize letters or a struggling 16-year-old find the derivative of a function—requires extensive knowledge of learners and learning, teaching techniques, behavior management, and the content itself. Such professional knowledge requires not only years to master fully but also the willingness to change as the evidence base of effective teaching grows, as curricula change, and as the needs of learners evolve. Given the imperative for teachers to continually hone their knowledge, skills, and practices, teaching has been aptly called the “learning profession” (Darling-Hammond & Sykes, 1999). Job-embedded professional development—skillfully implemented and supported by federal, state, and local policy—constitutes a powerful lever to advance student learning.

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