Indicator: The LEA/School structures professional development to provide adequate time for collaboration and active learning. (5164)

Explanation: The evidence review indicates that high performing LEAs and schools provide high quality professional development (PD) that factors in sufficient time for collaboration and active learning. Active learning PD is often hands-on and can be job embedded allowing for authentic, ample practice opportunities for those striving to strengthen their instructional capacity. Collaborative PD allows for learning teams to meet at grade level or content area whereby these teams begin to serve as mentors and support groups for each other's continued professional practice improvements.

Questions: How will the LEA/school ensure all professional development offerings include sufficient time for collaboration? How will the LEA/school build professional development upon and around active, engaging learning experiences? What process will the LEA/school use to establish structures that promote and support professional learning teams? What data will the LEA/school use to identify areas of professional need?

In an effective professional learning system, school leaders learn from experts, mentors, and their peers about how to become true instructional leaders. They work with staff members to create the culture, structures, and dispositions for continuous professional learning and create pressure and support to help teachers continuously improve by better understanding students' learning needs, making data-driven decisions regarding content and pedagogy, and assessing students' learning within a framework of high expectations.

Teachers meet on a regular schedule in learning teams organized by grade-level or content-area assignments and share responsibility for their students' success. Learning teams follow a cycle of continuous improvement that begins with examining student data to determine the areas of greatest student need, pinpointing areas where additional educator learning is necessary, identifying and creating learning experiences to address these adult needs, developing powerful lessons and assessments, applying new strategies in the classroom, refining new learning into more powerful lessons and assessments, reflecting on the impact on student learning, and repeating the cycle with new goals as necessary.

The system at the school level is supported by state and federal policies that encourage regular teacher collaboration and professional learning closely tied with school improvement priorities and provides needed resources to give teachers time and opportunity to make this happen.

(Wei, Darling-Hammond, Andree, Richardson, & Orphanos, 2009, pp. ii–iii)

We recognize that professional development does not always lead to professional learning, despite its intent (Easton, 2008; Fullan, 2007a). Indeed, Michael Fullan (2007a) argues that external approaches to instructional improvement are rarely "powerful enough, specific enough, or sustained enough to alter the culture of the classroom and school" (p. 35). He reminds us of Richard Elmore's (2004) assertion that "improvement above all entails 'learning to do the right things in the setting where you work'" (p. 73). Likewise, Lois Brown Easton argues that the most powerful learning opportunities are active learning opportunities embedded in teachers' work,

which begins with teachers' assessments of what their students need and, subsequently, what teachers identify as areas for their own learning. She contends:

> It is clearer today than ever that educators need to learn, and that's why *professional learning* has replaced *professional development*. Developing is not enough. Educators must be knowledgeable and wise. They must know enough in order to change. They must change in order to get different results. They must become learners, and they must be self-developing (Easton, 2008, p. 756, emphasis in original text).
>
> (Wei et al., 2009, pp. 1–2)

Research on effective professional development highlights the importance of collaborative and collegial learning environments and communities of practice in schools (Knapp, 2003; Darling-Hammond & McLaughlin, 1995). Putnam and Borko (2000) call for a situated approach to teacher learning which grounds professional development in teachers' own practices. This approach does not limit opportunities to the classroom context, but does require ways for new knowledge and skills developed in professional development to be "intertwined with [teachers'] ongoing practice" (p. 6). In a review of effective professional development programs in middle schools, Killion (1999) found that when teachers participate in professional learning with peers from their school site, they become "engaged in a powerful form of staff development that allows them to grapple with "real" issues related to the new content and instructional processes" (p.180).

Collaborative approaches have been found to be effective in promoting school change that extends beyond individual classrooms (Hord, 1997; Joyce & Calhoun, 1996; Louis, Marks, & Kruse, 1996; McLaughlin & Talbert, 2001; Newman & Wehlage, 1997; Perez et al., 2007). When whole grade levels, schools or departments are involved, they provide a broader base of understanding and support at the school level. Teachers create a critical mass for improved instruction and serve as support groups for each other's improved practice. Collective work in trusting environments provides a basis for inquiry and reflection into teachers' own practice, allowing teachers to take risks, solve problems and attend to dilemmas in their practice (Ball & Cohen, 1999; Bryk, Camburn, & Louis, 1999; Lieberman & Wood, 2002; Little, 1993).

The design of professional development experiences must also address how teachers learn. Opportunities for active learning or "sense-making" activities are important (Snow-Renner & Lauer, 2005, p. 11). These often involve modeling the sought after practices and constructing opportunities for teachers to practice and reflect on the new strategies (Carpenter et al., 1989; Cohen & Hill, 2001; Garet et al., 2001; Desimone et al., 2002; Penuel, Fishman, Yamaguchi, & Gallagher, 2007; Saxe, Gearhart & Nasir, 2001; Supovitz, Mayer & Kahle, 2000).

(Wei et al., 2009, p. 6)

As Garet and colleagues (2001) found in a recent national survey, when teachers have an opportunity to do "hands-on" work which enhances their knowledge of the content to be taught to students and how to teach it, and is aligned with the curriculum and local policies, they report a greater sense of efficacy. Furthermore, teachers who report gaining greater knowledge and skills through their professional development are also likely to report changing their teaching practices. This study also found that professional development is more likely to be viewed by teachers as effective if it is sustained over time and offers substantial contact hours, allowing more opportunities to engage in active learning, enable meaningful collaboration and focus on content, all of which enhance the acquisition of knowledge and skills.

(Wei et al., 2009, p. 8)

According to Vega (2013) in her article *Teacher Development Research Review: Keys to Educator Success*, "When teachers receive well-designed professional development, an average of 49 hours spread over six to 12 months, they can increase student achievement by as much as 21 percentile points (Yoon, Duncan, Lee, Scarloss, & Shapley, 2007). On the other hand, one-shot, "drive-by," or fragmented, "spray-and-pray" workshops lasting 14 hours or less show no statistically significant effect on student learning (Darling-Hammond, Wei, Andree, Richardson, & Orphanos, 2009). Above all, it is most important to remember that effective professional-development programs are job-embedded and provide teachers with five critical elements (Darling-Hammond et al., 2009):

Collaborative learning: Teachers have opportunities to learn in a supportive community that organizes curriculum across grade levels and subjects.

Links between curriculum, assessment, and professional-learning decisions in the context of teaching specific content: Particularly for math and science professional-development programs, research has emphasized the importance of developing math and science content knowledge, as well as pedagogical techniques for the content area (Blank, de las Alas, and Smith, 2008; Blank and de las Alas, 2009; Heller, Daehler, Wong, Shinohara, and Miratrix, 2012).

Active learning: Teachers apply new knowledge and receive feedback, with ongoing data to reflect how teaching practices influence student learning over time.

Deeper knowledge of content and how to teach it: Training teachers solely in new techniques and behaviors will not work.

Sustained learning, over multiple days and weeks: Professional-development efforts that engage teachers in 30 to 100 hours of learning over six months to one year have been shown to increase student achievement.

Research on professional development for teachers has shifted in the last decade from delivering and evaluating professional-development programs to focusing more on authentic teacher learning and the conditions that support it (Webster-Wright, 2009). In the next section, we discuss models of professional learning that focus on supporting continual professional learning and community-based feedback cycles that help teachers to critically and collaboratively examine and refine their practices.

References and Resources

Ball, D., & Cohen, D. (1999). Developing Practice, Developing Practitioners: Toward a Practice-based Theory of Professional Education. In L. Darling-Hammond & G. Sykes (Eds.), *Teaching as the Learning Profession: Handbook of Policy and Practice* (pp. 3–32). San Francisco, CA: Jossey-Bass Publishers.

Blank, R. K., & de las Alas, N. (2009). *Effects of Teacher Professional Development on Gains in Student Achievement: How Meta-Analysis Provides Scientific Evidence Useful to Education Leaders.* Washington, DC: Council of Chief State School Officers. Retrieved from http://www.ccsso.org/Documents/2009/Effects_of_Teacher_Professional_2009.pdf

Blank, R. K., de las Alas, N., & Smith, C. (2008). *Does Teacher Professional Development Have Effects on Teaching and Learning?: Analysis of Evaluation Findings from Programs for Mathematics and Science Teachers in 14 States.* Washington, DC: Council of Chief State School Officers. Retrieved from http://www.ccsso.org/Documents/2008/Does_Teacher_Professional_Development_2008.pdf

Bryk, A., Camburn, E., & Louis, K. (1999). Professional Community in Chicago Elementary Schools: Facilitating Factors and Organizational Consequences. *Educational Administration Quarterly*, *35*(5), 751–781.

Carpenter, T. P., Feneman, E., Peterson, P. L., Chiang, C. P., & Loef, M. (1989). Using Knowledge of Children's Mathematics Thinking in Classroom Teaching: An Experimental Study. *American Educational Research Journal, 26*(4), 499–531.

Cohen, D. K., & Hill, H. C. (2001). *Learning Policy*. New Haven, CT: Yale University Press.

Darling-Hammond, L., & McLaughlin, M. W. (1995). Policies that Support Professional Development in an Era of Reform. *Phi Delta Kappan, 76*(8), 597–604.

Darling-Hammond, L., Wei, R. C., Andree, A., Richardson, N., & Orphanos, S. (2009). *Professional Learning in the Learning Profession: A Status Report on Teacher Development in the United States and Abroad.* Dallas, TX: National Staff Development Council. Retrieved from http://learningforward.org/docs/pdf/nsdcstudy2009.pdf

Desimone, L., Porter, A., Garet, M., Yoon, K., & Birman, B. (2002). Effects of Professional Development on Teachers' Instruction: Results from a Three-Year Longitudinal Study. *Education Evaluation and Policy Analysis, 24*(2), 81–112.

Easton, L. B. (2008). From Professional Development to Professional Learning. *Phi Delta Kappan*, *89*(10), 755–759.

Elmore, R. F. (2004). *School Reform from the Inside Out.* Cambridge, MA: Harvard University Press.

Fullan, M. (2007a). Change the Terms for Teacher Learning. *Journal of Staff Development, 28*(3), 35–36.

Garet, M., Porter, A., Desimone, L., Birman, B., & Yoon, K. S. (2001). What Makes Professional Development Effective? Results from a National Sample of Teachers. *American Educational Research Journal, 38*(4), 915–945.

Heller, J.I., Daehler, K.R., Wong, N., Shinohara, M., and Miratrix, L.W. (2012). Differential Effects of Three Professional Development Models on Teacher Knowledge and Student Achievement in Elementary Science. *Journal of Research in Science Teaching*, *49*(3), 333 – 362. Retrieved from http://onlinelibrary.wiley.com/doi/10.1002/tea.21004/full

Hord, S. (1997). *Professional Learning Communities: Communities of Continuous Inquiry and Improvement.* Austin, TX: Southwest Educational Development Laboratory.

Joyce, B., & Calhoun, E. (1996). *Learning Experiences in School Renewal: An Exploration of Five Successful Programs.* Eugene, OR: ERIC Clearinghouse on Educational Management.

Killion, J. (1999). *What Works in the Middle: Results-based Staff Development.* Oxford, OH: National Staff Development Council.

Knapp, M. S. (2003). Professional Development as Policy Pathway. *Review of Research in Education, 27*(1), 109–157.

Lieberman, A., & Wood, D. (2002). From Network Learning to Classroom Teaching. *Journal of Educational Change, 3*, 315–337.

Little, J. W. (1993). Teachers' Professional Development in a Climate of Educational Reform. *Educational Evaluation and Policy Analysis, 15*(2), 129.

Louis, K. S., Marks, H. M., & Kruse, S. (1996). Professional Community in Restructuring Schools. *American Educational Research Journal, 33*(4), 757–798.

McLaughlin, M. W., & Talbert, J. E. (2001). *Professional Communities and the Work of High School Teaching.* Chicago: University Of Chicago Press.

Newman, F., & Wehlage, G. (1997). *Successful School Restructuring: A Report to the Public and Educators by the Center on Organization and Restructuring of Schools.* Madison, WI: Document Service, Wisconsin Center for Education Research.

Penuel, W., Fishman, B., Yamaguchi, R., & Gallagher, L. (2007, December). What Makes Professional Development Effective? Strategies that Foster Curriculum Implementation. *American Educational Research Journal, 44*(4), 921–958.

Perez, M., Anand, P., Speroni, C., Parrish, T., Esra, P., Socias, M., & Gubbins, P. (2007). *Successful California Schools in the Context of Educational Adequacy.* Washington, DC: American Institutes for Research.

Public Impact. (2009). *Apply What You Know: Designing Effective Professional Development.* Chapel Hill, NC: Author. Retrieved from: http://publicimpact.com/images/stories/publicimpact/documents/RichlandCountyPDPlanning.pdf

Public Impact. (2009). *Effective Professional Development—What Do We Know?* Chapel Hill, NC: Author. Retrieved from: http://publicimpact.com/images/stories/publicimpact/documents/RichlandCountyEffectivePD.pdf

Putnam, R., & Borko, H. (2000). What Do New View of Knowledge and Thinking Have to Say about Research on Teacher Learning? *Educational Researcher, 29*(1), 4–15.

Saxe, G., Gearhart, M., & Nasir, N. S. (2001). Enhancing Students' Understanding of Mathematics: A Study of Three Contrasting Approaches to Professional Support. *Journal of Mathematics Teacher Education, 4*, 55–79.

Snow-Renner, R., & Lauer, P. (2005). *Professional Development Analysis.* Denver, CO: Mid-Content Research for Education and Learning.

Supovitz, J. A., Mayer, D. P., & Kahle, J. B. (2000). Promoting Inquiry Based Instructional Practice: The Longitudinal Impact of Professional Development in the Context of Systemic Reform. *Educational Policy, 14*(3), 331–356.

Vega, V. (2013). *Teacher Development Research Review: Keys to Educator Success.* San Francisco, CA: Edutopia. Retrieved from http://www.edutopia.org/teacher-development-research-keys-success

Webster-Wright, A. (2009). Reframing Professional Development through Understanding Authentic Professional Learning [Abstract}. Review of Educational Research, 79(2), 702-739. Retrieved from http://rer.sagepub.com/content/79/2/702.full.pdf

Wei, R. C., Darling-Hammond, L., Andree, A., Richardson, N., & Orphanos, S. (2009). *Professional Learning in the Learning Profession: A Status Report on Teacher Development in the United States and Abroad – Technical Report.* Dallas, TX: National Staff Development Council. Retrieved from http://learningforward.org/docs/pdf/nsdcstudytechnicalreport2009.pdf?sfvrsn=0

Yoon, K. S., Duncan, T., Lee, S. W-Y., Scarloss, B., & Shapley, K. L. (2007). *Reviewing the Evidence on How Teacher Professional Development Affects Student Achievement.* Washington, DC: National Center for education Evaluation and Regional Assistance, Institute of Education Sciences, U. S. Department of Education. Retrieved from http://ies.ed.gov/ncee/edlabs/regions/southwest/pdf/rel_2007033_sum.pdf