In the following report, Hanover Research analyzes scholarly and best practices literature on effective professional development including delivery models, impactful content, engagement strategies, and evaluation practices.
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EXECUTIVE SUMMARY AND KEY FINDINGS

INTRODUCTION
The Bill and Melinda Gates Foundation estimates that teachers spend an average of 89 hours per year on professional development and professional learning activities. While professional development is a “powerful strategy ... to improve teacher effectiveness,” it also requires a large investment of district resources and teacher time. As a result, it is important for districts to ensure they make effective use of professional development.

To support school districts as they evaluate professional development offerings, Hanover Research prepared this review of scholarly and best practices literature on professional development. The review highlights effective delivery models, engagement strategies, and evaluation practices. It proceeds in two sections:

- **Section I: Professional Development Delivery, Content, and Evaluation** examines key aspects of effective professional development, including effective delivery methods, impactful content, staff engagement, and evaluation.
- **Section II: District Profiles** highlights exemplary professional development programs at three school districts to provide insight into how districts implement best practices in professional development.

KEY FINDINGS

- **Effective professional development must be sustained and include ongoing support as teachers implement new skills.** Research indicates that program duration is associated with effectiveness, with some research suggesting that programs must last a minimum of 14 hours to be effective. In addition, districts should provide ongoing support and feedback to teachers through follow-up coaching and observations with a colleague or instructional coach.

- **Professional development should be collaborative and provide multiple opportunities for active learning.** Teachers who discuss new strategies and practice with their peers are more likely to implement these techniques and feel a shared responsibility for success and innovation. Active learning methods may include planning implementation of new instructional techniques or curricular materials in the classroom, practicing new skills, being observed by expert teachers, engaging in written work and discussions, applying new skills to student work, and role playing.

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Experts recommend use of professional learning communities (PLCs) and coaching partnerships to deliver professional development. Effective PLCs require supportive leadership, planning time, a respectful climate of shared values, and a willingness to share successes and challenges. Coaching should be ongoing, and often spans multiple months or the entire school year. Coaches should not be responsible for teacher evaluation, but should be knowledgeable in their subject area and skilled at providing feedback.

Professional development content must be directly relevant and applicable to teachers’ classrooms, be differentiated to teachers’ individual needs, and build on teachers’ previous knowledge and experiences. District leaders can conduct a needs assessment or consult teacher and student outcomes data to determine teacher needs. In addition, professional development activities should help school staff to develop cultural competence by providing opportunities for teachers to examine how their own identities and backgrounds may impact their teaching and their students’ learning.

District leaders can engage staff members in professional development by promoting choice, creating an environment conducive to experimentation, and modeling a growth mindset. Giving staff members a say in the professional development they receive enhances buy-in and engagement in these opportunities. Relatedly, teachers are more likely to value professional development that directly supports their instructional practices. Staff should feel comfortable to make mistakes, which encourages them to learn new skills without worrying about failing. Finally, district and school leaders should model a growth mindset by admitting when they do not know something and when they make mistakes, and explaining why they are trying something new.

When evaluating professional development, leaders should use a logic model to plan the evaluation and examine data from multiple sources. Key areas to address through an evaluation include quality of professional development implementation, participant feedback and satisfaction, and impact of professional development on participants and/or students. When planning the evaluation, evaluators should use a logic model or framework to track the inputs, activities, expected outcomes, and timeline of the program. Data sources and collection methods, such as surveys, observations, and work samples, should align with the intended outcomes of the program.
SECTION I: PROFESSIONAL DEVELOPMENT DELIVERY, CONTENT, AND EVALUATION

The following section examines key aspects of effective professional development, including best practices for effective delivery methods, impactful content, staff engagement, and evaluation.

FEATURES OF EFFECTIVE PROFESSIONAL DEVELOPMENT DELIVERY

Researchers emphasize that professional development must move beyond simply exposing teachers to a new idea or skill. Instead, as a report from the Center for Public Education (CPE) notes, the training experience should change teachers’ practices to increase student learning.³ To accomplish this, professional development should:⁴

- Expose teachers to various pedagogical strategies and the research base behind them; and
- Support teachers as they implement the research-based strategy into their classroom, recognizing that implementation is the most difficult learning stage for teachers.

Similarly, Learning Forward, a national organization that supports teacher professional development, notes that effective professional development allows educators to be active in deciding the content of their learning. As an example of this, professional learning communities (PLCs) serve as the foundation of the Learning Forward Standards for Professional Learning, displayed in Figure 1.1 on the following page. Through PLCs, educators gather to engage in a “cycle of continuous improvement” and inquiry.⁵ The educators collectively review data to determine student and educator needs, select appropriate evidence-based strategies to meet those needs, and monitor and evaluate the results of those strategies once implemented.⁶ Research finds that well-developed PLCs are positively correlated with instructional practice and student achievement.⁷

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⁴ Bullet points quoted with modification from: Ibid., p. 21.


⁶ Ibid.

Figure 1.1: Learning Forward Standards for Professional Learning

<table>
<thead>
<tr>
<th>Professional learning that increases educator effectiveness and results for all students ...</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning Communities</td>
</tr>
<tr>
<td>Leadership</td>
</tr>
<tr>
<td>Resources</td>
</tr>
<tr>
<td>Data</td>
</tr>
<tr>
<td>Learning Designs</td>
</tr>
<tr>
<td>Implementation</td>
</tr>
<tr>
<td>Outcomes</td>
</tr>
</tbody>
</table>

Source: Learning Forward

Research consistently indicates that effective professional development includes sustained duration with support, collaboration, and active learning. In a 2009 Learning Forward report examining professional learning opportunities for teachers around the world, researchers at Stanford University highlight the following features of effective professional development practices in high achieving countries:

- Extensive opportunities for both formal and informal in-service development;
- Time for professional learning and collaboration built into teachers’ work hours;
- Professional development activities that are embedded in teachers’ contexts and that are ongoing over a period of time;
- School governance structures that support the involvement of teachers in decisions regarding curriculum and instructional practice; and
- Teacher induction programs for new teachers with release time for new teachers and mentor teachers, and formal training for mentors.

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8 Figure content taken verbatim from: “Standards for Professional Learning.” Learning Forward. https://learningforward.org/standards-for-professional-learning

PROGRAM DURATION

Professional development programs that are sustained, ongoing, and embedded have greater effects on student and teacher outcomes. Longer-duration professional development provides teachers time to practice implementing new strategies. One-time professional development offerings do not allow teachers time to practice and learn from implementing new knowledge with their class, which is where the transfer from learning the skill to effectively using it occurs. As the CPE articulates:

The one-time workshop assumes the only challenge facing teachers is a lack of knowledge of effective teaching practices and when that knowledge gap is corrected, teachers will then be able to change. Research finds otherwise. It turns out teachers’ greatest challenge comes when they attempt to implement newly learned methods into the classroom.

For example, in a 2007 study funded by the U.S. Department of Education Institute of Education Sciences (IES), researchers from the American Institutes for Research (AIR) reviewed over 1,300 studies addressing the effect of professional development on student achievement. Only nine studies met the organization’s strict standards for rigor and quality, all of which employed workshops or summer institutes. The study found that programs that delivered 14 or more hours of professional development had significant positive effects on student achievement, while programs with less than 14 hours had no effect on student achievement. Moreover, teachers who received professional development of a “substantial” duration (an average of 49 hours) increased their student’s performance by 21 percentile points, with an average effect size of 0.54. Other research cited by the Center for Public Education (CPE) indicates that to master a new teaching strategy and successfully implement it in class could require up to 50 hours of instruction, practice, and coaching.

FOLLOW-UP AND SUPPORT

Sustained professional development should include follow-up to support, through coaching or collaboration, as teachers implement new teaching methods and knowledge in their classrooms. As the CPE notes:

Teachers change their underlying beliefs about how to teach something only after they see success with students. Indeed, when teachers do not see success, they tend to abandon the practice and revert to business as usual.

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11 Ibid., p. 10.
13 Ibid., p. iii.
15 Ibid., p. 30.
16 Ibid., p. 12.
A report published by Houghton Mifflin Harcourt adds that coaches can be instruction or content area experts, or just another teacher. “The important thing is that the teacher has someone to interact with and receive feedback from while trying something new.”

Research shows that teachers who receive ongoing implementation coaching after attending a workshop are more effective at implementing new teaching practices than teachers who only attended a workshop. For example, a 2007 study published in the Journal of Research in Science Teaching examined the effect of a sustained, collaborative professional development program on student achievement in science. The professional development program lasted three years, including an initial two-week long summer institute, ongoing follow up and support from a faculty coach, and grade- and school-level groups for implementation support. Researchers found a positive, statistically significant relationship between student science achievement and the sustained, collaborative professional development model.

**DELIVERY METHODS**

Learning new strategies and instructional methods is a process that takes time and multiple stages. In a report for Houghton Mifflin Harcourt, J. David Cooper of Ball State University outlined four components of effective professional development delivery. As presented in Figure 1.2, below, Cooper’s model includes teaching the theory and presenting the research behind the new skill, demonstrating the new skill, immediately providing the teacher with opportunities to practice and offering feedback on areas of success and improvement, and following-up with additional training and coaching to support the teacher in implementing the new strategy.

**Figure 1.2: The Teacher Professional Development Learning Process**

![Diagram of the Teacher Professional Development Learning Process](source: Houghton Mifflin Harcourt)

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21 Figure contents quoted verbatim with modification from: Ibid.
**COLLABORATION**

Professional development is more effective when it includes collaborative participation between teachers from the same grade, content area, or school.\(^2^2\) Whether following a professional development event with collaborative follow-up or conducting professional development through a collaborative model, collaboration can improve outcomes for teachers. Learning Forward explains that “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.”\(^2^3\) When teachers can discuss new techniques and practice with one another, they are more likely to implement new techniques. Additionally, collaboration can contribute to a “shared responsibility” for student achievement among a school or district, which can help to sustain the implementation of changes and new methodologies and contribute to overall success.\(^2^4\)

For example, a 2001 study published in *American Educational Research Journal* used interviews and surveys of a national sample of 1,027 mathematics and science teachers to measure the effectiveness of the professional development activities in which they participated. In the study, researchers Garet et al. concluded that collaboration provides teachers with multiple benefits, including:\(^2^5\)

- Increased opportunities to discuss concepts, skills, and problems that arise during their professional development experiences;
- Increased opportunities to share common curriculum materials, course offerings, and assessment requirements;
- The ability to integrate what they learn with other aspects of their instructional context;
- Teachers who share the same students can discuss students' needs across classes and grade levels;
- The ability to sustain changes in practice over time, as some teachers leave the school's teaching force and other new teachers join the faculty; and
- A shared professional culture, in which teachers develop a common understanding of instructional goals, methods, problems, and solutions.

Similarly, a 2014 study funded by the Bill and Melinda Gates Foundation examined teachers’ views of professional development through interviews, focus groups, and surveys with 1,300 teachers, principals, administrator professional development leaders, and professional development providers. The study found that teachers prefer and recognize the value of

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collaboration, but that collaborative professional development must be strategic to be effective. In a focus group, the researchers asked teachers to describe their current experiences and the ideal state of collaborative professional development. Teachers’ current experiences and their opinions of ideal collaborative professional development are presented in Figure 1.3, on the following page. According to teachers, ideal collaborative professional development is energizing, supportive, and uses active learning techniques that are hands-on or scenario-based.27

<table>
<thead>
<tr>
<th>CURRENT EXPERIENCE</th>
<th>IDEAL STATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of engagement</td>
<td>Energizing</td>
</tr>
<tr>
<td>Teachers report:</td>
<td>Teachers report:</td>
</tr>
<tr>
<td>▪ “Feels like I’m being held hostage.”</td>
<td>▪ “Makes me feel fired up.”</td>
</tr>
<tr>
<td>▪ “I would rather be somewhere else.”</td>
<td>▪ “Energized to go back to my classroom.”</td>
</tr>
<tr>
<td>Poor use of time</td>
<td>Supportive</td>
</tr>
<tr>
<td>Teachers report:</td>
<td>Teachers report:</td>
</tr>
<tr>
<td>▪ “Not another meeting.”</td>
<td>▪ “Makes me feel supported.”</td>
</tr>
<tr>
<td>▪ “Not one more thing I have to do.”</td>
<td>▪ “Feel accountable to show up to help each other.”</td>
</tr>
<tr>
<td>▪ “Don’t read PowerPoint presentations to me.”</td>
<td>▪ “Bounce ideas off of each other.”</td>
</tr>
<tr>
<td>Poorly planned/executed</td>
<td>Hands-on/scenario-based</td>
</tr>
<tr>
<td>Teachers report:</td>
<td>Teachers report:</td>
</tr>
<tr>
<td>▪ “People might have good knowledge but the pieces don’t fit together.”</td>
<td>▪ “Specific activities to do.”</td>
</tr>
<tr>
<td>▪ “Need an agenda and rules ... otherwise it’s a social hour.”</td>
<td>▪ “Brainstorm solutions for a specific teacher.”</td>
</tr>
<tr>
<td></td>
<td>▪ “Gives me what I need in bite-sized pieces.”</td>
</tr>
</tbody>
</table>

Source: Bill and Melinda Gates Foundation28

Furthermore, research indicates that teacher collaboration can spread the effects of professional development to staff who do not directly participate in the professional development program. For example, in a 2013 study published in *Educational Evaluation and Policy Analysis*, researchers found that teachers who participated in professional development of longer duration with active learning strategies were significantly more likely to help other teachers with teaching writing. As the researchers explain, “in addition to direct effects, spillover effects of professional development can occur through collegial interactions.”29

27 Ibid.
28 Figure reproduced verbatim with modification from: Ibid.
**ACTIVE LEARNING**

Teachers learn more when they can actively participate in learning and applying the information being presented to their classroom practices. The CPE notes that professional development is more successful when it “allow[s] teachers to learn the concept in varied, active ways.” According to Garet et al., who examined the professional development experiences of a nationally representative sample of teachers, professional development that provides teachers with opportunities to be “actively engaged in meaningful discussion, planning, and practice” effectively increases skills and changes teacher classroom practices.

Examples of active learning methods, many of which are collaborative, include planning how new instructional techniques or curricular materials will be used in the classroom, practicing implementation of new skills, being observed by expert teachers and observing expert teachers, engaging in written work and discussions, applying new skills to student work, and role playing. One highly effective method is modeling, where an expert demonstrates the new practice, rather than simply talking about it. Modeling helps teachers to understand a new concept and know how to apply it in their own classroom. For example,

Instead of hearing about inquiry learning in science, a master teacher might teach a science class using inquiry methodology while being observed by a teacher who is learning this skill. In this way, teachers can see how the method is used successfully in a class of real students.

**COLLABORATIVE DELIVERY FORMATS**

**PROFESSIONAL LEARNING COMMUNITIES**

Collaboration often occurs through professional learning communities (PLC), which allow teachers with a common grade or content focus to support each other through learning and implementing new skills. According to Learning Forward, teachers in PLCs “engage in continuous dialog and examination of their practice and student performance to develop and enact more effective instructional practices.” Teachers can learn from their colleagues, share their own knowledge and expertise, practice new techniques, and address problems and challenges. Another function of PLCs is to collectively examine student work. Comparing student work and outcomes allows teachers to identify common areas of student need and discuss the most effective instructional strategies, as well as standardize what is considered “good.”

In a 2013 report for the West Virginia Department of Education, researchers note that “PLCs work best when they have good leaders, who set agendas, facilitate activities, and practice

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31 Ibid.
34 Ibid., p. 17.
36 Ibid., p. 12.
professional routines for interaction.” Often, this leader could be an instructional coach. In addition to supportive leadership, other factors that contribute to PLC success include the availability of common planning time, a respectful climate that supports innovation and risk taking, teachers who are empowered to make decisions, and shared values. For PLCs to lead to improvement, teachers must also be willing to share any challenges or problems with implementing new approaches.

Specific practices for PLCs vary. In an infographic on best practices for PLCs, the ASCD makes the following recommendations:

- Have a clear purpose in mind before starting a PLC;
- Rotate group leadership;
- Make sure all adopted strategies are grounded in research;
- Try the ideas in a real-world setting;
- Create protocols for talking and behaving;
- Have each participant write down the action they commit to taking before the next meeting;
- Keep a journal to track your experience and reflect on implementing the new strategies; and
- Spend the last 10-15 minutes of the meeting reflecting on the session itself.

The ASCD recommends that PLCs include four to six teachers or administrators, who meet regularly and work on shared goals between meetings. While the number of participants is flexible, it should be enough people to have a variety of diverse perspectives but a small enough group to ensure everyone’s opinion is included and each member’s work can be discussed. The frequency and duration of PLC meetings depends on the group’s needs and goals. In Tucson Unified School District, for example, PLC members meet weekly for 50 minutes. A less frequent meeting schedule could meet once a month, with a commitment to read and work between meetings. This would provide teachers time to try implementing and reflecting on new strategies between meetings. Another suggestion is to meet every two weeks. In this setup, participants could use “the first session of each month to review readings and do content-based activities and the second session to discuss reports of classroom activities and the student work that resulted.” Figure 1.4, on the following page, presents a sample PLC meeting agenda.

38 Ibid.
43 Ibid.
Figure 1.4: Sample PLC Meeting Agenda

**Introduction (facilitator responsible)**
- Review of roles and expectations (as needed); and
- Review agenda for the day.

**Previous Topic Homework**
- Discussion of readings (all responsible); and
- Sharing and reflecting on classroom experiences and reviewing student work (one or more responsible for preparing).

**New Topic**
- Introduction of new topic (facilitator responsible);
- Identify what to read and reflect on before next meeting;
- Make commitments about classroom activities all will try and who will be responsible for presenting at the next meeting; and
- If pairs are not permanent features of your group, identify who will work with whom for classroom trials.

**Wrap-up: What did I learn? (facilitator leads)**

Source: ASCD

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**COACHING**

Coaching, a form of collaborative professional development, is often used as a one-on-one professional development model and to provide follow-up implementation support as part of a broader professional development initiative. Once teachers are presented with new methods and techniques, they meet with a coach before, during, and after a lesson to get feedback on implementing the new skill. Often, a teacher will meet with a coach multiple times over a sustained period, such as a semester or school year, to continuously evaluate successes and areas for improvement.

Research indicates that coaching is effective at helping teachers to successfully implement new research-based techniques. For example, a study published in the journal of *Teaching and Teacher Education* found that following a 30-hour, five-day workshop, a small group of 21 elementary school teachers who received individual instructional coaching throughout the school year significantly improved their performance and skill transfer. Specifically, the coaching was associated with statically significant improvements in teacher pedagogy, patterns of teacher growth, and changes in classroom organization.

Similarly, researchers Bruce Joyce and Beverley Showers report that coaching enables teachers to transfer new knowledge and skills into practice. Specifically, coached teachers:

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44 Figure contents quoted verbatim from: Ibid.
*Teaching and Teacher Education*, 27-4, 2011.
http://literacy.kent.edu/coaching/information/Research/randd-engaged-joyce.pdf
Practiced new strategies more often and with greater skill than uncoached educators with identical initial training;  
Adapted the strategies more appropriately to their own goals and contexts than did uncoached teachers who tended to practice observed or demonstrated lessons;  
Retained and increased their skill over time – uncoached teachers did not; and  
Were more likely to explain the new models of teaching to their students, ensuring that students understood the purpose of their strategy and the behaviors expected of them.

According to a study by the Bill and Melinda Gates Foundation, effective coaching is “ongoing and delivered by experienced content experts and individuals well trained at providing feedback.”  

Teachers prefer coaches with whom they can form an ongoing, trusting relationship and who are knowledgeable in their content area. Similarly, coaches should not be the same individual who conducts teacher evaluations. Furthermore, when implementing professional development through coaching, experts recommend that schools follow the instructional coaching cycle of identifying, learning, and adapting. An explanation of the steps involved in each phase of the cycle is presented in Figure 1.5, below.

**Figure 1.5: Instructional Coaching Cycle**

<table>
<thead>
<tr>
<th>Identify</th>
<th>Learn</th>
<th>Improve</th>
</tr>
</thead>
</table>
| • Teacher gets a clear picture of current reality by viewing observation data (collected by instructional coach or video);  
• Coach asks questions of the teacher to identify a goal;  
• Teacher identifies a student-focused goal; and  
• Teacher identifies a strategy to meet the goal or collaborates with coach to identify instructional strategy. | • Coach shares guidelines for the identified instructional strategy;  
• Teacher modifies the guidelines if they wish;  
• Teacher chooses an approach to modeling that they would like to observe and identifies a time to watch modeling (in the classroom with or without students, video, peer observation, co-teaching);  
• Coach provides modeling in one or more formats; and  
• Teacher sets a time to implement the strategy. | • Teacher implements instructional strategy;  
• Data is gathered on student progress toward goal (by teacher or coach);  
• Data is gathered on teacher’s implementation of the instructional strategy (by teacher or coach in class);  
• Coach and teacher meet to discuss implementation and progress toward the goal; and  
• Teacher makes modifications until the goal is met. |

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IMPACTFUL CONTENT

When designing the content of a professional development program, district leaders should begin by identifying teacher and staff professional learning needs. Experts say that professional development should be differentiated to teachers’ needs. It should take into account teachers’ diverse learning styles and build on previous experiences and current knowledge. The content should be specific to teachers’ grade level, as high school teachers will have different needs than elementary school teachers, and discipline. One way to identify educator learning needs is to consult educator data, using sources such as observations, performance evaluations, and teacher self-reflections. District leaders can also examine student data to identify gaps where teacher professional development could improve student outcomes. The district can also distribute a needs assessment survey that asks teachers and staff what they want or need to learn.

To effectively change teachers’ practices, the content of professional development should focus on a specific subject matter and pedagogical approaches to help students learn that subject matter. The CPE cites multiple empirical research studies showing that effective professional development programs address discipline-specific concepts and strategies. For example, Garet et al.’s study of the national sample of 1,027 mathematics and science teachers who participated in a variety of professional development offerings found a statistically significant, positive relationship between a subject-specific content focus and teachers’ enhanced knowledge and skills, with an effect size of 0.33.

In addition to focusing on specific content areas, the content of professional development offering must show teachers how to change their instruction to improve student learning. Researchers at Learning Forward explain that for content to be useful for teachers, it must focus on “concrete tasks of teaching, assessment, observation and reflection, rather than abstract discussions of teaching.” Thus, the content must be applicable to how teachers can use it to teach students. For example, the program could include an “analysis of the conceptual understanding and skills that students will be expected to demonstrate.”

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In addition, effective professional development builds on teachers’ prior experiences and current knowledge and skill base. Researchers contrast professional development activities that are disjointed and disconnected with coherent professional development that aligns with the teacher’s experience and knowledge base and encourages ongoing learning and improvement. Accordingly:

Coherence indicates the extent to which professional development experiences are part of an integrated program of teacher learning—activities that are consistent with teacher goals, build on earlier activities, are followed by additional activities, and involve teachers in discussing their experiences with other teachers and administrators in the school.

Coherence also refers to the degree to which professional development content is aligned with school goals, state and national standards, curriculum, and assessments. Furthermore, in Garet et al.’s study, coherence was associated with teachers’ enhanced knowledge and skills, with an effect size of 0.42. Thus, professional development that is connected to teachers’ other professional development experience has a greater effect on improving both teacher and student outcomes.

**Cultural Competency**

Cultural competency is an increasingly necessary skill for teachers. As the cultural and linguistic diversity of the student population increases, professional development plays a critical role in “engaging practicing teachers in examining and transforming their own practice in ways that acknowledge the critical role that culture and language play in learning.” The NEA defines cultural competence in education as the “skills and knowledge to effectively serve students from diverse cultures.” The following four skills of cultural competence apply to the entire school environment as well as to teachers:

- **Valuing diversity:** Accepting and respecting different cultural backgrounds and customs, different ways of communicating, and different traditions and values;
- **Being culturally self-aware:** Understanding that educators’ own cultures—all of their experiences, background, knowledge, skills, beliefs, values, and interests—shape their sense of who they are, where they fit into their family, school, community, and society, and how they interact with students;
- **Understanding the dynamics of cultural interactions:** Knowing that there are many factors that can affect interactions across cultures, including historical cultural experiences and relationships between cultures in a local community;

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65 Bullet points quoted verbatim from: Ibid.
Institutionalizing cultural knowledge and adapting to diversity: Designing educational services based on an understanding of students’ cultures and institutionalizing that knowledge so that educators, and the learning environments they work in, can adapt to and better serve diverse populations.

According to a report by the Equity Alliance at Arizona State University, professional development for culturally responsive teaching acknowledges how culture affects teachers’ practices and “emphasizes how educators’ biographies, professional identities, and awareness of the technical (e.g., how-to), contextual (e.g., how circumstances shape the ways things are), and critical (e.g., the social justice lens) aspects of education” affect teaching and learning. Thus, culturally responsive teachers acknowledge how their own backgrounds and educational experiences affect their beliefs and practices about teaching. To accomplish this, professional development, through discussions of subject-specific content, should provide opportunities for teachers to examine their own beliefs, biases, culture, and experience and how they affect their teaching of culturally and linguistically diverse students. The Equity Alliance provides six principles of professional development for fostering culturally responsive teachers, which are highlighted in Figure 1.6, below.

Figure 1.6: Principles of Professional Development for Culturally Responsive Teachers

| Principle I: | Professional development is focused on improving learning within a diverse, multicultural community. The outcomes, content, and activities of any professional learning activity must be grounded in the multicultural context that characterizes most contemporary urban communities. |
| Principle II: | Professional development engages educators in joint, productive activity through discourse, inquiry, and public professional practice. Effective professional learning is reached by continuous, collaborative interaction with colleagues through discussion, knowledge development and understanding, and directed inquiry around professional practice. |
| Principle III: | Professional development is a facet of daily living, not a compartmentalized activity. Since professional learning is embedded within practice, it becomes part of daily discourse, shared discussions about student learning and student products, as well as more formalized mentoring and coaching, meetings, study groups, and examination of evidence from inquiry cycles. |
| Principle IV: | Professional development results in improved learning for students who have been marginalized from the academic and social curricula of the U. S. public school system. Professional learning provides opportunities for teachers to explore and understand the influence of individual cultural identity and values on individual and systems practices, as well as expand their professional knowledge of the sociocultural dimensions of learning, and its impact assessed through student involvement and performance in academic and social curricula. |

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67 Ibid.

68 Ibid., p. 13.
Principle V:
Professional development influences decisions about what is taught and why. Since professional learning is generative, educators’ knowledge will expand and become more complex as it develops. It is expected that professional learning will result in the use of a cultural perspective in the examination and improvements to the content and process of instruction for all learners.

Principle VI:
Professional development focuses on the diffusion of professional knowledge to build sustainable educational communities focused on improving learning outcomes for all students and their families, particularly those students who are members of cultural and linguistic minorities. As educators gain knowledge, they also have the responsibility for sharing and mentoring others both in the practice of professional learning and in the expanded knowledge that comes from such activity.

Source: Equity Alliance

Professional development focusing specifically on cultural competence can be especially effective for improving both teacher and student outcomes. For example, in a 2009 study published in the Middle Grades Research Journal, researchers found that when teachers received professional development on cultural and instructional strategies for teaching English language learners, the students’ academic achievement increased.

ENGAGING STAFF IN PROFESSIONAL DEVELOPMENT OPPORTUNITIES

Experts say schools should encourage staff to have a “growth mindset.” School staff with a growth mindset want to learn and are open to ways to improve their practice; they “see challenges as opportunities to learn, are eager to add to their skills and, as a result, are passionate about their work.” Alternatively, staff with a fixed mindset view talents as innate and fixed, do not feel that they have control over strengths and weaknesses, lack persistence, and avoid learning new ideas. As regards professional development, staff with a fixed mindset:

- Rarely attend training unless required;
- Take courses only when they need the continuing education credits;
- Are quick to look for a way to fix the child or critique the parents when a child is struggling, but rarely change their own methods; and
- Fear failure so they meet new ideas with resistance.

In an article about developing a growth mindset among teachers and students, author and educator Amelia Dress writes that while school staff want to improve, “this aspiration can backfire if teachers feel pressure to have all the answers, all the time. Instead of embracing

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69 Figure content quoted with modification from: Ibid., p. 6.
72 Bullet points quoted with modification from: Ibid.
challenges as learning opportunities, teachers might see difficult situations as a threat to their status as experts.”

Schools can promote a growth mindset through language and messaging about abilities, evaluations, and learning opportunities. For example, at a staff meeting, an administrator could ask everyone to share a success and a challenge, which contributes to a culture of learning when experienced staff and teachers admit to struggling with an issue or challenge. This normalizes the need for continued learning. Following up by asking the staff member what they need or offering solutions for learning further adds to developing a shared growth mindset. Additionally, the district should promote a “culture of experimentation,” where teachers and other staff members are encouraged to try new things, and the learning process is emphasized over learning outcomes. Teachers should feel comfortable to make mistakes, which should be viewed as a natural part of the learning process. This will encourage staff to want to learn new skills without worrying about failing. Finally, district and school leaders should model a growth mindset. For example, use what Dress calls a “growth vocabulary.” That is, leaders admit when they do not know something and when they make mistakes, and explain when they are trying something new, as shown in Figure 1.7.

Figure 1.7: Examples of Using a Growth Vocabulary to Model a Growth Mindset

- “I’m trying a new way to structure staff meetings. After the meeting, can we take a few minutes to talk about what worked?”
- “I have to talk to an upset parent and I don’t know very much about conflict resolution yet. I need a few minutes in my office to do some reading.”
- “I’m really interested in this new idea I read about. Let’s try it for a month and see how it works for us.”

Source: Exchange

Furthermore, research indicates that teachers are more satisfied with their professional development when they have a say in their learning choices. Yet nationally, nearly one in five teachers never have a say in their professional development, and fewer than one in three choose most or all of their professional learning. According to the 2014 Gates Foundation report, teachers “who choose all or most of their professional learning opportunities are more than twice as satisfied with professional development as those with fewer options.” Thus, by structuring professional development as an opportunity for learning where teachers have a choice in what they learn, rather than a compliance exercise, schools can encourage more teachers to participate. Similarly, teachers are more likely to value professional development that directly supports their instructional practices. Thus, district leaders can increase engagement by offering relevant professional development and providing messaging that the learning opportunities will directly apply to helping students learn.

73 Ibid., p. 13.
74 Ibid., p. 14.
75 Ibid.
78 Ibid., p. 11.
Additionally, a 2011 study published in *Teachers College Record*, demonstrates how school policy can affect how teachers view and engage in professional development opportunities. In the study, researchers used data from a large national sample of math and science teachers from the Schools and Staffing Survey to examine how state- and school-level policies affect teachers’ decisions to participate in content-focused professional development. Their analysis revealed that school-level policy had a greater effect on teachers’ participation in professional development than state-level policies. School policies influencing participation included authority, power, and stability. Specifically, the researchers found that teachers who met the following characteristics were more likely to participate in sustained professional development:79

- Who reported that they have some influence over school policy;
- In schools where principals frequently observe and supervise teachers; and
- In schools with stable leadership (i.e. where the principal has been at the school for at least three years).

Notably, these findings were stronger for math teachers (which the researchers define as a high-stakes subject area) than science teachers (which the researchers define as low-stakes subject area) and stronger for professional development focusing on content, rather than classroom management.80 Overall, the research indicates that school leaders can establish buy-in and encourage teachers and other school staff to participate in professional development through consistent messaging about staff and student learning goals.81

In addition to school policy, *schools can encourage participation in professional development by targeting teachers who need it the most*. In a 2006 article published in *Educational Administration Quarterly*, researchers examined the responses of over 1,000 Grade 8 teachers who participated in the National Assessment of Educational Progress (NAEP) to determine the relationship between a teacher’s knowledge and participation in professional development, and concluded that teachers who need professional development the most are the least likely to participate in it. Teachers who already had strong math content knowledge and felt more prepared to teach various math content areas were significantly more likely to engage in sustained, content-focused professional development than teachers with weak content knowledge. Additionally, teachers who taught in mixed-ability classes were more likely to engage in sustained professional development than teachers of low or advanced ability classes, indicating that teachers may be prompted to engage in professional development when met with a challenge.82 Based on their findings, the researchers offer four recommendations for administrators for increasing teacher engagement in professional development:83

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80 Ibid., pp. 2609–2613.


83 Bullet points quoted with modification from: Ibid., p. 179.
Encourage teachers to overcome their anxieties about engaging in challenging professional development by scaffolding and matching activities to teachers’ levels of expertise;

Get teachers onboard to improve their skills by building links between their professional development activities and the school’s vision;

Require teachers to take high-quality professional development to address deficiencies that have been detected through classroom observations or other evaluation activities; and

Stop providing low-quality, ineffective professional development.

**PLANNING PROFESSIONAL DEVELOPMENT EVALUATIONS**

As definitions of professional development have expanded, so have the ways in which professional development has been evaluated. Prior to 2000, professional development offerings were primarily evaluated through gathering teacher feedback and satisfaction data. More recently, evaluations of teacher professional development have utilized more complex empirical methods for assessing efficacy and impact.⁸⁴

**Evaluations of professional development are driven by questions.** Learning Forward says that comprehensive evaluations of professional development should answer three basic questions about the implementation of the program, how teachers experienced the program, and the impact the program has on instruction and student learning.⁸⁵ Figure 1.8 describes the three key questions and possible topics to explore to answer those questions.

**Figure 1.8: Questions to Drive Professional Development**

<table>
<thead>
<tr>
<th>Implementation</th>
<th>Perceptions</th>
<th>Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Did the professional learning take place as planned?</td>
<td>What were teachers’ perceptions of the professional learning?</td>
<td>Did the professional learning achieve the intended outcomes?</td>
</tr>
<tr>
<td>- Participation</td>
<td>- Understanding of the program’s purpose</td>
<td>- Mastery of new knowledge and skills</td>
</tr>
<tr>
<td>- Availability of resources</td>
<td>- Ratings of usefulness of key components of the program</td>
<td>- Changes in professional practice</td>
</tr>
<tr>
<td>- Frequency and duration of the program</td>
<td>- Extent to which PD met individual learning needs</td>
<td>- Changes in student learning outcomes, behavior, and engagement</td>
</tr>
<tr>
<td>- Whether key players carried out responsibilities</td>
<td>- Alignment of PD with district priorities</td>
<td>- Changes in school organization and culture</td>
</tr>
<tr>
<td>- Contextual factors that may have influenced implementation</td>
<td>- Likelihood of applying new knowledge and skills in the classroom</td>
<td></td>
</tr>
</tbody>
</table>

Source: Learning Forward⁸⁶

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http://www.perkornhall.se/Per_Kornhall/Pysslingen_files/Desimone%202009.pdf


⁸⁶ Figure content adapted from: Ibid., pp. 24-29
LOGIC MODELS AND FRAMEWORKS

Many organizations and industry experts, including the U.S. Department of Education’s Institute of Education Sciences (IES) and the National Comprehensive Center for Teacher Quality (now part of the American Institutes for Research) recommend using logic models when evaluating professional development. Logic models are used to “articulate a theory of action and select the metrics to use to determine whether the theory is borne out in reality.”87 According to the IES, logic models are useful to evaluators in three ways. Logic models:88

- Guide program personnel in understanding the program’s activities and intended outcomes more clearly and completely;
- Help educators identify evaluation questions based on which features are most critical to evaluate, and allocate resources accordingly; and
- Help form specific and actionable evaluation questions.

Logic models vary in complexity and content, and differ according to the purposes of the professional development program. The IES advises that logic models include four key components: the resources, or inputs to the program; the activities, which are the aspects of implementation; the outputs, or observable products of the completed activities; and outcomes, including the short-, mid-, and long-term effects or impacts.89 For example, Thomas Guskey of the University of Kentucky developed a logic model (shown in Figure 1.9, on the following page) that includes five critical levels for professional development evaluation. Guskey argues that at each level, gathering data for assessing professional development becomes increasingly complex. Notably, successfully gathering data and assessing one level requires successfully assessing previous levels, as each level builds on the previous one.90

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89 Ibid., p. 1.
Another recommended tool for planning professional development evaluations is an evaluation framework, which serves as a plan for how the evaluation will be conducted. Using an evaluation framework, educators identify evaluation questions, data sources, data collection methods, person(s) responsible for data collection, data analysis method(s), and the timeline for data collection and analysis. Figure 1.10, below, outlines the steps for constructing an evaluation framework. Planning these elements before conducting the evaluation helps to ensure that the evaluation is effective and that the data sources and collection methods best match the evaluation questions.

**Figure 1.9: Guskey’s Five Levels of Professional Development Evaluation**

Source: Guskey\(^91\)

---

**Figure 1.10: Steps for Constructing an Evaluation Framework**

<table>
<thead>
<tr>
<th>STEP</th>
<th>QUESTIONS TO ANSWER</th>
</tr>
</thead>
</table>
| 1. Determine Evaluator | ▪ Who will conduct the evaluation?  
  ○ Internal evaluator;  
  ○ External evaluator; or  
  ○ Combination.  
  ▪ Does the designated evaluator have the knowledge, skills, and resources to conduct the evaluation? |
| 2. Decide How to Answer Evaluation Question(s) | ▪ What are the key constructs (terms such as student achievement, improvement, increase, professional learning) that will be measured? How have they been defined so that they are clear and specific?  
  ▪ Does the evaluation question require making a comparison to determine impact? If so, what are possible comparison groups? Which is the most appropriate comparison group for this evaluation?  
  ○ Cohort;  
  ○ Individual;  
  ○ Group;  
  ○ Panel; or  
  ○ Generic. |

\(^91\) Ibid.  
<table>
<thead>
<tr>
<th>STEP</th>
<th>QUESTIONS TO ANSWER</th>
</tr>
</thead>
<tbody>
<tr>
<td>3. Create a Data Plan</td>
<td>- Who or what is expected to change as a result of this professional learning program?</td>
</tr>
<tr>
<td></td>
<td>- What types of changes are expected as a result of this professional learning program in the identified target audiences or organizational structures?</td>
</tr>
<tr>
<td></td>
<td>o Knowledge;</td>
</tr>
<tr>
<td></td>
<td>o Attitudes;</td>
</tr>
<tr>
<td></td>
<td>o Skills;</td>
</tr>
<tr>
<td></td>
<td>o Aspirations; and</td>
</tr>
<tr>
<td></td>
<td>o Behavior.</td>
</tr>
</tbody>
</table>

Source: Learning Forward

**IDENTIFYING DATA SOURCES AND COLLECTION METHODS**

Though challenging, an essential aspect of professional development evaluations is determining which teacher, student, or school outcomes to measure and how to measure them. The type and frequency of data collection depends on the purpose of the evaluation. Evaluations can be conducted both during and after the program, and serve both formative and summative purposes. Specifically, Learning Forward describes four common types of evaluations:

- **Early or formative evaluations**, which gauge teacher satisfaction with professional learning and help determine whether the professional learning took place as planned, whether teachers mastered new knowledge and skills, and whether teachers applied the new knowledge and skills in their classroom;

- **Formative evaluations**, which help professional development participants, facilitators, providers, and sponsors determine whether the professional learning is on track or whether midcourse changes are necessary to achieve intended outcomes;

- **Final or summative evaluations**, which help stakeholders understand whether the professional development achieved the intended outcomes as these outcomes are reflected in changes in teachers’ professional practice and increased student learning; and

- **Ongoing evaluations**, which yield information about changes in school organization and culture that result from participation in the professional development being evaluated.

Formative and summative evaluations answer different research questions, as described in Figure 1.11, on the following page. Notably, while formative evaluations are more useful for determining how the professional development was implemented and what changes should be made, summative evaluations assess the impact of the professional development.

---

93 Figure content quoted with modification from: Ibid., p. 103.  
Figure 1.11: Questions Answered by Formative and Summative Evaluations

<table>
<thead>
<tr>
<th>Formative Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Are the program activities being implemented as planned?</td>
</tr>
<tr>
<td>• Are resources adequate to implement the program as planned?</td>
</tr>
<tr>
<td>• To what degree are planned changes, i.e. initial and intermediate outcomes, occurring in implementation that may influence achievement of the program’s goals?</td>
</tr>
<tr>
<td>• What adjustments are needed in the program’s actions to address unanticipated challenges and increase the likelihood of achieving the intended goals?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Summative Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Has the learning achieved the intended results?</td>
</tr>
<tr>
<td>• What changes for educators have resulted from the professional learning?</td>
</tr>
<tr>
<td>• What changes for students have resulted from the professional learning?</td>
</tr>
<tr>
<td>• What changes in the school, school system, or education agency have resulted from the professional learning?</td>
</tr>
</tbody>
</table>

Source: Learning Forward

**Evaluations should draw data from multiple sources.** Desimone cautions that all evaluation data sources include some aspect of implicit bias, and thus professional development evaluators should use a mix of quantitative and qualitative data sources. In addition, the data source and collection method should match the outcome being evaluated. For example, if evaluators were looking to determine participants’ reactions, then surveys could be appropriate. Alternatively, if evaluators were interested in determining whether teachers were applying what they had learned, then structured observations would be more helpful. If evaluators were interested in student outcomes, then they could examine student work. Guskey’s logic model of five levels of professional development evaluation includes outcomes and suggestions for data collection methods that would be appropriate at each level. These outcomes and data collection methods are presented in Figure 1.12 on the following page. Notably, while some of the data collection methods overlap for similar outcomes, many differ depending on the outcome.

---

96 Figure content quoted with modification from: Killion, Op. cit., p. 39.
### Figure 1.12: Guskey’s Evaluation Levels, Outcomes, and Data Collection Methods

<table>
<thead>
<tr>
<th>EVALUATION LEVEL</th>
<th>OUTCOME BEING MEASURED</th>
<th>DATA COLLECTION METHODS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participants’ Reactions</td>
<td>Initial satisfaction with experience</td>
<td>- Questionnaires administered at the end of sessions;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Focus groups;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Interviews;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Personal learning log; and</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Analysis of threaded discussion forums.</td>
</tr>
<tr>
<td>Participants’ Learning</td>
<td>New knowledge and/or skills of participants</td>
<td>- Paper and pencil tests;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Simulations and demonstrations;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Participant reflections (oral and/or written;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Participant portfolios;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Case study analysis; and</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Analysis of threaded discussion forums.</td>
</tr>
<tr>
<td>Organization support and change</td>
<td>The organization’s advocacy, support, accommodations, facilitation and recognition</td>
<td>- District and school records;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Minutes from meetings;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Questionnaires;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Focus groups;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Structured interviews with participants and school or district administrators;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Participant portfolios;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Analysis of threaded discussion forums.</td>
</tr>
<tr>
<td>Participants’ use of new knowledge or skills</td>
<td>Degree and quality of information</td>
<td>- Questionnaires;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Structured interviews with participants and their supervisors;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Participant reflections (oral and/or written);</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Participant portfolios;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Direct observations;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Video or audio tapes; and</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Concerns-based Adoption Model.</td>
</tr>
<tr>
<td>Student Learning Outcomes</td>
<td>Cognitive outcomes, affective outcomes, and psychomotor outcomes</td>
<td>- Student records;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- School records;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Questionnaires;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Structured interviews with students, parents, teachers, and/or administrators; and</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Participant portfolios.</td>
</tr>
</tbody>
</table>

Source: “Guskey’s Five Critical Levels of Professional Development Evaluation”

99 Figure content quoted with modification from: "Guskey’s Five Critical Levels of Professional Development Evaluation." Connecting CantyCommunities.
http://connectingcanycommunities.wikispaces.com/file/view/Guskey+5+levels.pdf
Learning Forward recommends piloting new data collection instruments before their official use to ensure accuracy. The organization notes, “Data collection processes must be refined for accuracy, and appropriate protocols for collecting data must be developed that give detailed explanations for how to collect data.”\textsuperscript{100} Data must be collected carefully and accurately according to the plans in the evaluation framework. Additionally, “evaluators often create checks and balances for themselves to ensure that data are recorded accurately, that errors in data entry are found and corrected, and that missing data or outlier data are handled appropriately.”\textsuperscript{101}

After data is collected, evaluators should organize, analyze, and interpret the data. Once the findings are interpreted, the evaluators should identify the appropriate audience and disseminate the findings from the evaluation. Notably, experts say educators should consider how they will display the results, as different formats may be required for different stakeholders. For example, “formats for sharing evaluation results include technical reports, brief executive summaries, pamphlets, newsletters, news releases to local media, and oral presentations.” Sharing the results of the evaluation is important in order to impact and improve future professional development.\textsuperscript{102}

\textsuperscript{101} Ibid.  
SECTION II: DISTRICT PROFILES

The following section profiles the professional development programs at three school districts: Rochester City School District (RCSD) in New York, Baltimore County Public Schools (BCPS) in Maryland, and Broward County Public Schools (Broward) in Florida. The school districts were identified through a comprehensive search of school districts who implement professional development based on the best practices identified in Section I of this report. Figure 2.1 presents demographic and institutional characteristics of the three districts.

<table>
<thead>
<tr>
<th>Enrollment</th>
<th>ROCHESTER CITY SCHOOL DISTRICT</th>
<th>BALTIMORE COUNTY PUBLIC SCHOOLS</th>
<th>BROWARD COUNTY PUBLIC SCHOOLS</th>
</tr>
</thead>
<tbody>
<tr>
<td>% FRL</td>
<td>83.1%</td>
<td>47.5%</td>
<td>61.5%</td>
</tr>
<tr>
<td>% Minority</td>
<td>89.8%</td>
<td>57.9%</td>
<td>76.8%</td>
</tr>
<tr>
<td>% English learners</td>
<td>11.4%</td>
<td>3.9%</td>
<td>10.6%</td>
</tr>
<tr>
<td>Total No. of Schools</td>
<td>54</td>
<td>173</td>
<td>355</td>
</tr>
<tr>
<td>Total No. FTE Teachers</td>
<td>2,436</td>
<td>7,262</td>
<td>15,210</td>
</tr>
</tbody>
</table>

Data from 2014-15 School Year
Source: National Center for Education Statistics

ROCHESTER CITY SCHOOL DISTRICT (NEW YORK)

OVERVIEW

RCSD’s professional development philosophy states, “Effective professional learning engages adult learners in authentic tasks and experiences directly linked to the needs of their students. Adult learning is most effective when experienced through collaborative job-embedded experiences.” Following best practices literature, RCSD’s professional development is collaborative and applicable to teachers’ classroom experiences. RCSD professional development is also aligned with both the National Standards for Professional Learning and the New York State Professional Development Standards. In its 2013 Professional Development Plan, RCSD articulates a shift from “traditional” professional development to high-quality professional learning experiences. Figure 2.2, on the following page, highlights the changes between RCSD’s former and current professional development programming.

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104 Ibid., p. 4.
105 Ibid., p. 6.
**Figure 2.2: RCSD Professional Development Shifts for Best Practices Alignment**

<table>
<thead>
<tr>
<th><strong>Former Professional Development Practices</strong></th>
<th><strong>Current and Future Professional Learning Practices</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>A department consisting of two members to meet and manage the needs of the entire district.</td>
<td>An expanded department with focused responsibilities to target district needs: i.e. Technology (LMS), Coaching, Leadership, Initiatives and Outcomes, Professional Development Providers.</td>
</tr>
<tr>
<td>One time workshops and stand-alone trainings.</td>
<td>Ongoing, scaffold series of meaningful experiences.</td>
</tr>
<tr>
<td>Professional development primarily focused on teachers.</td>
<td>Continuous improvement for all who impact student learning.</td>
</tr>
<tr>
<td>A focus on teacher interests</td>
<td>A data driven, results driven focus on student needs.</td>
</tr>
<tr>
<td>Insignificant non-essential professional development.</td>
<td>Essential professional learning aligned with the Common Core, APPR, educator and District Goals.</td>
</tr>
<tr>
<td>Solely district workshops/union workshops conducted.</td>
<td>A school based collaborative model professional learning with teams of educators focusing on continuous improvement.</td>
</tr>
<tr>
<td>Limited opportunities for differentiated approaches to learning.</td>
<td>Multiple forms of learning to support the transfer of new/enhanced knowledge, strategies and skills, including classroom based coaching, online content and online resources.</td>
</tr>
<tr>
<td>Paid offerings, workshops training (i.e. PDI, stipend).</td>
<td>Enhancement of professional learning to focus on student achievement enticing educators to improve one’s own practice to increase student achievement.</td>
</tr>
<tr>
<td>Predominately presentation/workshop design for professional development.</td>
<td>A variety of research based learning designs to actively engage participants in a continuous cycle of improvement and increase educator effectiveness.</td>
</tr>
<tr>
<td>Limited resources to support the work.</td>
<td>Expanded number of resources to directly guide and support the work.</td>
</tr>
<tr>
<td>Minimal follow-through on monitoring and evaluation of implementation and application of new learning.</td>
<td>Increased accountability using multiple measures and the implementation of district wide protocols.</td>
</tr>
</tbody>
</table>

Rochester City School District\textsuperscript{107}

While the majority of professional development at RCSD occurs at the school level, the district Office of Professional Learning includes staff who collaborate with schools to support, monitor, and plan professional learning. District staff help schools train leaders such as department chairs, coaches, and team leaders. They also support professional development delivery, implementation, and evaluation at the school level.\textsuperscript{108} Notably, district professional development providers facilitate content-specific professional learning and professional learning communities, with an emphasis on cultural responsiveness and special student populations, providing an understanding of:\textsuperscript{109}

\textsuperscript{107} Figure content quoted with modification from: Ibid., pp. 5–6.
\textsuperscript{108} Ibid., pp. 34–35.
\textsuperscript{109} Bullet points quoted with modification from: Ibid., p. 36.
What it means to be a culturally responsive teacher;
Why it is important to be a culturally responsive teacher in this district; and
What one can expect from a culturally responsive teacher/environment and again, how those expectations are connected to Common Core and APPR.

**DELIVERY MODELS**

RCSD offers instructional coaching as one if its professional development programs. Coaches work collaboratively with individual teachers or teams of teachers to implement effective instructional strategies that improve student performance.\(^{110}\) According to RCSD, coaching establishes a “trusting relationship... that assists teacher in implementing better teaching practices.”\(^ {111}\) Coaches and teachers participate in co-planning/co-teaching, modeling and demonstrating, data collection, observation, and ongoing feedback.\(^ {112}\) Other common areas of job-embedded professional learning at RCSD include guided observation, collaborative lesson planning, and student work analyses.\(^ {113}\)

Additional examples of ways RCSD teachers can participate in professional learning include:\(^ {114}\)

- Mentoring;
- Service/designation as support teacher, helping teacher, demonstration class teacher or coach;
- Service as a cooperating teacher for a student teacher or field internships; including attendant meetings and processes;
- Collaborating with other teachers to examine case studies of student work and development;
- Creating/Assessing teacher portfolio, including the PART/Summative process;
- Engaging in research projects that are collaborative and action oriented;
- Participating in formal programs of peer coaching or peer review such as PART/Summative and work as Lead Teacher/specialists;
- Participating in reviews of class performance data over time to make decisions about one’s own professional development, based on student outcomes;
- Developing or collaborating on the development of new programs and instructional methods; and
- Participating in courses and other learning opportunities delivered from many providers, such as institutions of higher education, teacher centers, BOCES, school districts and independent professional development service providers.


\(^{111}\) Ibid.


\(^{113}\) Ibid.

PLANNING AND EVALUATION

RCSD’s Professional Development Plan includes a framework for planning and evaluating professional development, as shown in Figure 2.3.

**Figure 2.3: RCSD Professional Development Evaluation Framework**

- **Student Performance Data or Rationale(s):** “The data shows _____;”
- **Adult Expected Outcomes:** “Therefore, adults need to identify and implement _____;”
- **Student Expected Outcomes:** “So that students will be able to _____;”
- **Resources:** “We have _____ accessible to us;”
- **Professional Learning Experience(s)/Method(s):** “Therefore, adults will participate in _____/_____;”
- **Initial Outcomes:** “Initially adults will _____;”
- **Intermediate Outcomes:** “Midway through the experience/adults will _____ and/or _____;”
- **Results:** “Students will _____;”
- **People Responsible:** “_____ will take the lead on this experience/method;”
- **Time Frame:** “From _____ to _____;” and
- **Methods for Monitoring/Evaluating:** “Progress and completion will be measured by _____.”

Source: RCSD

To evaluate professional development, RCSD uses a variety of assessment tools. All schools complete the Standards Assessment Inventory 2 to:

- Provide information to the Office of Professional Learning about teachers’ perceptions of professional learning;
- Reveal the degree of success or challenges RCSD faces with professional learning practices and implementation; and
- Provide decision-makers with data on the quality of professional learning as defined by the Standards for Professional Learning, a system’s alignment of professional learning to the standards, and the relationship of the standards to improve in educator effectiveness and student achievement.

Other evaluation tools include AVATAR, pre- and post- professional development assessments, calibration testing, and annual professional performance reviews. The district also uses teacher surveys, focus groups, student data, teacher work samples, and observations in evaluating the impact and success of its professional development efforts.

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115 Bullet points quoted with modification from: Ibid., p. 38.
116 Bullet points quoted with modification from: Ibid., p. 86.
117 Ibid., pp. 86–87.
BALTIMORE COUNTY PUBLIC SCHOOLS (MARYLAND)

OVERVIEW

At the district level, the BCPS Department of Professional Development collaborates with schools to establish and support learning communities, determine the role of the learning community within the school, and evaluate the results of the learning community. The district also acts to set and clarify expectations for job-embedded professional development. Specifically, the Office of Organizational Development provides:

- Equitable access to multiple pathways for professional growth based on personalized development plans;
- Advocacy for professional learning opportunities, support, and resources that consider the diverse needs of adult learners;
- Models for highly effective professional learning aligned with professional learning standards; and
- Support to enhance cultural competency.

According to a professional development guide published by BCPS, “High-quality professional development addresses the context, process, and outcomes of professional learning.” Figure 2.4 describes the key features of high-quality professional development at BCPS.

Figure 2.4: BCPS Key Features of High-Quality Professional Learning

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>FEATURES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Context</td>
<td>▪ Powerful professional development takes place in learning communities committed to continuous improvement and ongoing inquiry;</td>
</tr>
<tr>
<td></td>
<td>▪ Adequate resources are required to support adult learning and collaboration; and</td>
</tr>
<tr>
<td></td>
<td>▪ Technology is an important component in the delivery of professional development.</td>
</tr>
<tr>
<td>Process</td>
<td>▪ Professional development reflects system-wide priorities, policies, and procedures;</td>
</tr>
<tr>
<td></td>
<td>▪ Professional development organizational components guide the three phases of the change process: initiation (introductory phase), implementation (ongoing support phase), and institutionalization (embedded practice and review phase);</td>
</tr>
<tr>
<td></td>
<td>▪ The Professional Development Cycle begins with a needs assessment that reviews student achievement data, the needs of diverse learners, and input from stakeholders;</td>
</tr>
<tr>
<td></td>
<td>▪ Yearlong professional development plans identify objectives based on system needs and expected results for student achievement;</td>
</tr>
<tr>
<td></td>
<td>▪ Professional development activities are aligned with high-quality standards and adult-learning principles; and</td>
</tr>
<tr>
<td></td>
<td>▪ Professional development is evaluated through an online survey tool.</td>
</tr>
</tbody>
</table>

119 Bullet points quoted with modification from: “Department of Professional Development.” Baltimore County Public Schools. https://www.bcps.org/offices/dpd/
### CATEGORY | FEATURES
--- | ---
**Outcomes** | - Professional development is collaborative, continuous, standards-focused, research-based, and intellectually rigorous;  
- Professional learning opportunities lead to changes in participant behavior and increases in student achievement;  
- Professional development activities provide educators with the knowledge and skills needed to involve families and community members as active partners in meeting the needs of all students; and  
- Results are documented using an internal auditing process.

Source: Baltimore County Public Schools

**DELIVERY MODELS**

At BCPS, experienced teachers facilitate professional learning communities and promote job-embedded professional learning. These teachers support other teachers’ professional development by securing resources and time, planning professional learning opportunities, and informing teachers of professional development opportunities. The experienced teachers work collaboratively to model and coach new instructional strategies to build teachers’ knowledge and skill base. For example, lead teachers work with other teachers to coach, model, and teach technology skills to ensure that students meet the Maryland Technology Literacy Standards for Students.

Other common job-embedded professional development opportunities include “peer review and feedback on unit plans, lessons, and assessments; collaborative analysis of student work; and action research.”

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121 “Office of Organizational Development.” Baltimore County Public Schools.  
https://www.bcps.org/offices/dpd/teachers.html

PLANNING AND EVALUATION

BCPS’s professional development is based on a professional development cycle, which is presented in Figure 2.5. Notably, the cycle requires extensive planning for determining professional development needs, schedules, and evaluation plans.

Figure 2.5: Professional Development Cycle

Needs Assessment
• Complete teacher needs assessment;
• Identify gaps in student achievement; and
• Focus on standards and research-based approaches to address gaps.

Evaluation
• Disseminate immediate surveys;
• Observe the quality of implementation; and
• Apply data from evaluation to inform future PD.

Year at a Glance
• Align PD with needs;
• Define expected results; and
• Submit yearlong professional development plans for approval.

Activity and Calendar Development
• Align activities with performance goals;
• Cluster PD activities as appropriate; and
• Publish a schedule of PD activities.

Registration and Attendance Reconciliation
• Register participants for PD activities;
• Implement high quality PD; and
• Reconcile attendance and access attendance reports.

Source: Baltimore County Public Schools

BCPS Guide to High-Quality Professional Development states that professional development evaluations include multiple information sources that are both quantitative and qualitative. The evaluation focuses on “the identified needs, the quality of implementation of professional development activities, actual improvements in the participants’ performance, the impact on student achievement, and the overall effectiveness of the systems.” Evaluations of BCPS’s professional follow Guskey’s Five Levels of Professional Development Evaluation (See Figure. 2.1).

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123 Figure reproduced with modification from: Ibid., p. 5.
124 Ibid., p. 10.
125 Ibid.
BCPS uses an online survey tool to gather participant feedback. After participating in professional development, teachers receive a survey that asks about the professional development implementation and participant learning. Additional feedback included in the survey involves items such as:

- The professional development made connections to my prior knowledge and experience;
- New information was clearly presented in a manner that deepened my professional knowledge and skills;
- The professional development activities and strategies allowed me to reflect on new learning; and
- I have a clear understanding about how to apply the new knowledge and skills in a professional setting (e.g., classroom, office).

Administrators also respond to a survey detailing the implementation process. To analyze the impact of the professional development, BCPS uses the survey results in combination with data from observations, attendance reports, and student assessments.

BROWARD COUNTY PUBLIC SCHOOLS (FLORIDA)

OVERVIEW

According to a Broward report on their professional learning system, professional development in the district is:

- Proactive to rising expectations for student, educator, administrator and support personnel performance;
- Focused on a model of continuous improvement through professional learning that results in actual improvements in instruction, leadership and job performance, and
- Designed to positively impact the learning environment, delivery of instruction and student learning.

DELIVERY MODELS

Broward uses an online platform called MyLearningPlan to catalog and monitor professional learning opportunities available to teachers and non-instructional staff. Through MyLearningPlan, Broward offers a wide range of both formal and informal professional development opportunities. The programs cover a variety of durations, subjects, and delivery methods. When creating a new professional development offering, providers must first submit a proposal through MyLearningPlan.

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126 Bullet points quoted with modification from: Ibid., p. 11.
127 Ibid.
**PLCs**

Much of the professional learning in Broward occurs through professional learning communities (PLCs). One of the district’s goals is to ensure participation in PLCs at every grade level and subject area. Teachers participate in PLCs where they “use data to determine student and educator learning needs; develop common team goals; engage in learning to implement research-based strategies and use formative and summative data to evaluate the impact of what was learned and implemented.” According to Broward’s district-wide professional learning website, PLCs work in three phases: planning, learning and implementing, and evaluating. PLC team members’ actions during each of these three phases are highlighted in Figure 2.6, below. Broward tracks teacher and student outcomes to evaluate the impact of participation in a professional learning community.

**Figure 2.6: Phases of PLCs at Broward**

<table>
<thead>
<tr>
<th>Phase I: Planning</th>
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<tbody>
<tr>
<td>The PLC Team forms and reviews data to inform plans to engage in professional learning for the academic year.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Phase II: Learning and Implementing</th>
</tr>
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<tbody>
<tr>
<td>Team members collaborate to research and implement classroom-centered interventions aligned with team, teacher, and student learning goals. Teachers use common formative assessments (CFAs) to track teacher and student progress.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Phase III: Evaluating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teams use summative data to evaluate the PLC’s impact on changes in teacher practice and student learning, and to inform future work.</td>
</tr>
</tbody>
</table>

For accountability and evaluation purposes, each PLC documents the group’s work and keeps minutes for each meeting. Minutes are entered into MyLearningPlan and are approved by the school’s professional development administrator. Additionally, each PLC member has a specific role, and the district employs Professional Development Standards and Support (PDSS) staff to support PLCs at the school level. A description of the roles and responsibilities of PLC members is provided in Figure 2.7, on the following page.

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131 Ibid.
132 Figure contents quoted with modification from: Ibid.
### Figure 2.7: PLC Roles and Responsibilities

<table>
<thead>
<tr>
<th>ROLES</th>
<th>RESPONSIBILITIES</th>
<th>SUPPORT AVAILABLE</th>
</tr>
</thead>
</table>
| **Professional Development Administrator** | - Provides the time and opportunity for PLCs to meet;  
- Approves PLC Proposals;  
- Monitors PLC Team progress within MyLearningPlan;  
- Monitors CARE Cycle submissions by team; and  
- Provides feedback on the implementation of professional learning and effectiveness towards reaching targets. | - Professional Learning Webinars;  
- MyLearningPlan Brainsharks; and  
- PDSS Contact. |
| **Inservice Facilitator (IF)** | The IF acts as liaison between the school’s assigned PLC teams and PDSS Support Contact. The IF provides essential information, tools, and resources to facilitate successful implementation of the PLC model in their building. The IF:  
- Maintains rosters;  
- Ensures PLC enrollment;  
- Participates in all webinars and training;  
- Monitors Team Rooms for PLC Activity (Minutes); and  
- Closes, by May 29th of each year, all school-based PLCs to ensure those who completed all requirements earn appropriate inservice credit. | - Inservice Facilitator Training;  
- Professional Learning Webinars;  
- MyLearningPlan Brainsharks;  
- IF MidYear Update;  
- Open Labs;  
- IF PLC Close Out; and  
- PDSS Contact. |
| **Educator “Participant”**    | - Actively participates in at least ONE PLC related to his/her Learning Plan for the entire year;  
- Documents outcomes of learning and impact on student performance through the CARE Cycle; and  
- Provides PLC Feedback at the conclusion of the professional learning experience. | - Professional Learning Webinars;  
- Open Labs;  
- MyLearningPlan Brainsharks; and  
- PDSS Contact. |
| **PDSS Support Contact**      | These specialists guide School-based Professional Learning Community Teams to successfully implement and appraise their team’s learning. Working collaboratively with the Inservice Facilitator, PLC Facilitator and PD Administrator, our PDSS Support Contacts provide expert advice and tools to ensure participants will be able to earn inservice credit within the Professional Learning System. | N/A |

Source: Broward County Public Schools\(^{135}\)

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\(^{135}\) Figure contents quoted with modification from: Ibid.
EVALUATION

Broward uses a variety of formative and summative data to evaluate the fidelity of implementation and impact of the professional development. Additionally, teachers, professional learning teams, and professional development providers each complete surveys detailing the professional development implementation. The district uses the survey data to improve the professional learning system. Furthermore, district leaders meet regularly to assess the district’s professional learning system. They review:

- **The district’s purposes for professional learning**: Are purposes appropriate and consistent with district and state goals?
- **The capacities (human, fiscal, time, resources) that support professional learning**: Are capacities sufficient for sustaining the professional learning system?
- **The deliverables’ focus on the products of collegial learning processes and professional learning activities**: Are deliverables focused on purposes, making effective use of capacities, and are they being implemented with fidelity?
- **The results of the professional learning system and the professional learning deliverables**: Are the impacts of professional learning resulting in changes in individuals’ and school leaders’ performance, student growth or job performance?

Broward uses the evaluation results to make decisions about organizational changes for supporting leadership and instruction, as well as to share messages about the professional learning system’s successes and challenges with parents and community members.

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136 Ibid., p. 11.
137 Bullet points quoted with modification from: Ibid., p. 13.
138 Ibid., p. 11.
PROJECT EVALUATION FORM

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