Twenty-first-century learning requires sophisticated forms of teaching to develop student competencies, such as deep mastery of challenging content, critical thinking, complex problem-solving, effective communication and collaboration, and self-direction. In turn, effective professional development is needed to help teachers learn and refine the pedagogies required to teach these skills. However, research has noted that many professional development initiatives appear ineffective in supporting changes in teachers’ practices and student learning. This leads to the question: **What are the features of effective professional development?**

The Learning Policy Institute conducted a review of 35 methodologically rigorous studies that have demonstrated a positive link among teacher professional development, teaching practices, and student outcomes. Through that review, researchers identified seven widely shared features of effective professional development. Specifically, we found that effective professional development

1. **Is content focused:** Professional development that focuses on teaching strategies associated with specific curriculum content supports teachers’ learning within their classroom contexts. This element includes an intentional focus on discipline-specific curriculum development and pedagogies in areas such as mathematics, science, or literacy.

2. **Incorporates active learning:** Active learning engages teachers directly in designing and trying out teaching strategies, providing them an opportunity to engage in the same style of learning they are designing for their students. Such professional development uses authentic artifacts, interactive activities, and other strategies to provide deeply embedded, highly contextualized professional learning. This approach moves away from traditional learning models and environments that are lecture based and have no direct connection to teachers’ classrooms and students.

3. **Supports collaboration:** High-quality professional development creates space for teachers to share ideas and collaborate in their learning, often in job-embedded contexts. By working collaboratively, teachers can create communities that positively change the culture and instruction of their entire grade level, department, school, and/or district.

4. **Uses models of effective practice:** Curricular models and modeling of instruction provide teachers with a clear vision of what best practices look like. Teachers may view models that include lesson plans, unit plans, sample student work, observations of peer teachers, and video or written cases of teaching.

5. **Provides coaching and expert support:** Coaching and expert support involve the one-on-one sharing of expertise about content and evidence-based practices, focused directly on teachers’ individual needs.

6. **Offers feedback and reflection:** High-quality professional learning frequently provides built-in time for teachers to intentionally think about, receive input on, and make changes to their practice by facilitating reflection and soliciting feedback. Feedback and reflection both help teachers to thoughtfully move toward the expert visions of practice.

7. **Is of sustained duration:** Effective professional development provides teachers with adequate time to learn, practice, implement, and reflect upon new strategies that facilitate changes in their practice.
Implications for Policy and Practice

Examples of professional development that have been successful at raising student achievement can help policymakers and practitioners better understand what quality teacher professional learning looks like. While effective professional development has the potential to support powerful teaching and learning, investing in the careful design and implementation of professional development models that are likely to be effective is essential. Professional development should be linked to identified teacher needs and should ensure teachers have a say in the type of learning they require to best support their students.

Policymakers can support and incentivize these types of evidence-based professional development models by providing more personalized models of professional development that move beyond teachers’ “seat time” to models that promote active learning and that take place within teachers’ classrooms, considering the context of one’s students, classroom, and school. Additionally:

- Policymakers could adopt standards for professional development to guide the design, evaluation, and funding of professional learning provided to educators. These standards might reflect the features of effective professional learning outlined in this report, as well as standards for implementation.
- Policymakers and administrators could evaluate and redesign the use of time and school schedules to increase opportunities for professional learning and collaboration, including participation in professional learning communities, peer coaching and observations across classrooms, and collaborative planning.
- States, districts, and schools could regularly conduct needs assessments using data from staff surveys to identify areas of professional learning most needed and desired by educators. Data from these sources can help ensure that professional learning is not disconnected from practice and supports the areas of knowledge and skills educators want to develop.
- State and district administrators could identify and develop expert teachers as mentors and coaches to support learning in their particular area(s) of expertise for other educators.
- States and districts can integrate professional learning into Every Student Succeeds Act (ESSA) school improvement initiatives, such as efforts to implement new learning standards, use student data to inform instruction, improve student literacy, increase student access to advanced coursework, and create a positive and inclusive learning environment.
- States and districts can provide technology-facilitated opportunities for professional learning and coaching, using funding available under Titles II and IV of ESSA to address the needs of rural communities and provide opportunities for intradistrict and intraschool collaboration.
- Policymakers can provide flexible funding and continuing education units for learning opportunities that include sustained engagement in collaboration, mentoring, and coaching, as well as institutes, workshops, and seminars.