Indicator Explanation

DOMAIN	EFFECTIVE PRACTICE	INDICATOR
Leadership	Customize and target support to meet needs	1C.3 School leaders work with Instructional Teams and individual teachers to use data to assist in identification and implementation of differentiated strategies to match student needs.

Instructional teams that consist of groups of teachers organized into grade-levels, grade-level clusters, or subject-areas provide an opportunity for teachers to work collectively to improve instruction and student achievement (Hamilton, et al., 2009). Hattie (2012) suggests that "Within a school, we need to collaborate to build a team working together to solve the dilemmas in learning, to collectively share and critique the nature and quality of evidence that shows our impact on student learning, and to cooperate in planning and critiquing lessons, learning intentions, and success criteria on a regular basis" (p. 172). Research has consistently demonstrated that a collaborative school culture, with educators working together in teams, is linked to stronger instruction and higher student achievement (DuFour, 2011; Goddard et al., 2007; Hitt & Tucker, 2016; Ronfeldt et al., 2015). These teams are often charged with data-driven decision making (DDDM) to guide continuous instructional improvement (Park, 2018). Collaborative team structures in which teachers analyze student learning data within instructional cycles increase the chances of providing the excellent teaching and learning opportunities for all students that are essential for school improvement (Hirsh, 2018).

In a recent review of the literature, Ronfeldt et al. (2015) concluded that collaboration in which teachers analyze student data and develop instructional responses to address the data is key to promoting gains in student achievement. Teams of teachers must use both formal assessment data and informal observations of student learning to determine students' learning needs and design ways that these needs can be addressed through changes to instruction- al practice. Effective teams are those in which teachers collaborate with a clear and consistent focus on student learning data (Hirsh, 2018; Vescio et al.,2008). A review of literature on teachers' use of data concluded that the absence of professional development has hampered many teachers' ability to use the data to make significant changes to their instructional practice (Datnow & Hubbard, 2015; Mandinach & Gummer, 2013). For significant achievement gains to occur, teachers will likely need training and support in order to engage in frequent and structured collaboration around student data effectively (National Association of Elementary School Principals, n.d.; Saunders et al., 2009).

DuFour and Mattos (2013) offer the following suggestions to school leaders seeking to establish high-quality instructional teams/PLCs that are focused in-depth on evaluating evidence of student learning and curriculum/instruction planning and refinement:

1. Use the evidence of student learning to identify
   - Students who need additional time and support to become proficient;
   - Students who need enrichment and extension of their learning because they're already highly proficient;

- Teachers who help students achieve at high levels so team members can examine those teachers' practices, as well as teachers who struggle so that team members can assist the teacher in addressing the issue;
- Skills or concepts that none of the team members were able to help students achieve at the in- tended level, so the team can expand its learning beyond its members to become more effective in teaching those skills or concepts. The team can seek help from members of other teams in the building with relevant expertise in these areas, specialists from the central office, other teachers of the same content in the district, or networks of teachers throughout the U.S. that they can interact with online.

2. Create a coordinated intervention plan that ensures that all students who struggle receive additional time and support for learning in a way that is timely, directive, diagnostic, precise, and most important, systematic. (p. 38)

Instructional decision-making should be made within "an ongoing cycle of collecting multiple data sources, interpreting data to formulate hypotheses about strategies to raise student achievement and implementing instructional changes to test hypotheses" (National Association of Elementary School Principals, n.d., p. 3). Through the continuous data analysis cycle teachers determine whether instructional changes and intervention/supports being implemented for identified students are working as intended, and then either continue these practices, modify them, or implement different practices.

Recent research has examined in-depth how teachers talk about student learning data in PLCs, with a focus on how these conversations and interactions are important for establishing a culture of inquiry and thoughtful and equitable data use practices (Horn et al., 2015; Nelson et al., 2012). Nelson et al (2012) found that collaborative inquiry could potentially result in more equitable practice when teacher groups "notice and examine a variety of links between the specifics of their student-learning data and other aspects of practice, including instructional strategies or materials, curricular goals, classroom discourse patterns, and their own content knowledge" (p. 33). In other words, rather than using student learning data to simply prove or disprove existing beliefs about students and their capabilities, teachers trained in collaborative inquiry looked at instructional practices as they relate to student thinking (Nelson et al., 2012). As Park (2018) notes:

Conversations about student data matter because they shape how educators' make sense of student learning data and whether they lead to instructional improvement or instructional management (Horn et al., 2015). They also matter because they have the potential to disrupt deficit narratives about student abilities and to reorient discussions toward inquiry [about instructional practice]." (p. 642)

Principals should establish a clear vision and culture for school-wide data use and form a data team to serve as advisors on data use throughout the school. The data team should represent a range of stakeholders and those stakeholders should solicit input from, and work with, the entire school com- munity. The data team does not hold staff accountable for using data, supervise the data-related activities, or provide expert advice, but provides leadership through modeling the use of data (IES, 2009; NAESP; 2011).

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