



**Indicator:** Administrators, teachers, staff, students, parents, and other stakeholders participate in an organized training and support system incorporating program methodologies (including the use of online tools and curricula) and the proper use of the learning management and student management systems. (A1)

**Explanation:** As new technologies are implemented within schools, teachers, administrators, staff, students, and parents all benefit from an organized technology training and support system tailored to their needs. Professional learning with technology integration can best be achieved through whole-school training personalized to individual needs, and should be sustained and job-embedded. As learning management systems are introduced within schools, all stakeholders including parents benefit from training in ways to use these systems to support student engagement and academic success.

**Questions:** How can technology training programs involve all stakeholders? How can parents benefit from technology training to support their children? How will you involve all stakeholders in the training? How can you embed the training for teachers and support their continued learning of the techniques and tools introduced in the training?

Learner-centered, or personalized learning refers to “tailoring learning for each student’s strengths, needs and interests—including enabling student voice and choice in what, how, when, and where they learn—to provide flexibility and supports to ensure mastery of the highest standards possible” (Patrick, Kennedy, & Powell, 2013, p. 4). The student is actively involved with the teacher in co-constructing their individualized learning pathway, and the location, time, and pace of learning may vary from student to student (Redding, 2016). Technology makes personalized learning approaches possible at scale and can assist in all areas of teaching and learning, including student data and assessment, curriculum selection and alignment to standards, and instruction and learning (Wolf, 2010; Redding, 2014). A good deal of research evidence has supported the use of technologies to increase student achievement (e.g., Tamin, Bernard, Borokhovski, Abrami, & Schmid, 2011). Recent preliminary research also suggests that personalized learning practices that incorporate technology and online curricula, when implemented with fidelity, may result in positive and large student achievement gains, particularly for students behind academically (Pane, Steiner, Baird, & Hamilton, 2015).

#### *How Can Technology Training Programs Involve All Stakeholders?*

The recent U.S. ConnectED initiative was designed to enrich K–12 education by connecting 99% of students with broadband, high speed internet access in their schools, and empower teachers with training and technology that allows them to keep up with continually changing professional and technological demands (U.S. Department of Education, 2016). Technology professional learning should be personalized for teachers and should be ongoing, job-embedded and relevant to their instructional needs (Schifter, 2016; U.S. Department of Education, 2016). In addition, in “Future Ready” schools:

Teachers and leaders engage in collaborative inquiry to build the capacity of both the participating staff and the school as a whole through face-to-face, online, and blended professional learning communities and networks.

Leaders ensure that professional learning planning is participatory and ongoing. Leaders learn alongside teachers and staff members, ensuring that professional learning activities are supported by technology resources and tools, time for collaboration, and appropriate incentives (U.S. Department of Education, 2016, p. 42).

Clearly implementing a sophisticated technology program that includes online tools and curricula as well as learning and student management systems within a school will be most effective if all stakeholders participate in appropriate training in how the various tools can best be used to meet their needs. Of course teachers' professional learning experiences with technology tools and integration will likely vary from the training received by the rest of the school community; however, all stakeholders can benefit from understanding the school's technology program and can give technology integration a boost through their support (Moeller & Reitzes, 2011). One example of an approach that builds the capacity of all teaching staff within a school is the Technology Together model (Graham & Phelps, 2013). Technology Together is driven by staff within the school and promotes a culture of staff (including support staff) and administrators learning together to implement technological tools. The program incorporates a metacognitive approach in which staff are encouraged to think about their thinking and learning in order to develop confidence and willingness to try new integration ideas (Phelps & Graham, 2008). The researchers note that:

A key feature of Technology Together is scaffolding teachers to set themselves technology learning goals. No matter what their current level of knowledge or skill all school staff can take on new challenges. We use a goal-setting structure which engages teachers in setting both 'big picture' and immediate goals focused on skills, pedagogy, recreation, metacognition, and/or leadership (Technology Together, 2016).

The researchers noted positive changes to teachers' attitudes and understanding of technology integration, and program participation led to a culture change and the building of a technology learning community within the school (Phelps & Graham, 2008). Research on technology professional learning in general also shows that teacher training should be sustained (longer than one year), embedded in content, matched with stated objectives, and allow for teachers to reflect on and refine their

pedagogical approaches (Gerard, Varma, Corliss, & Linn, 2011). Additionally, working with multiple teachers from the same school helps provide a supportive structure for technology integration (Gerard, Bowyer, & Linn, 2010). In order to increase access for teachers and provide transparency to stakeholders, district administrators may want to consider creating a "digital hub" to contain all worthwhile professional development materials (Cooper, 2015).

#### *How Can Parents Benefit From Technology Training to Support Their Children?*

Parents can also benefit from training and support to learn relevant aspects of a school's technology program; this can translate into stronger parent engagement and thus higher levels of student engagement (The Children's Partnership, 2010; U.S. Department of Education, 2016). Initiatives to show parents how to use technology to become more engaged with their children's education include communication through social media such as Twitter and Facebook, as well as text messages sent in various languages (Fleming, 2012). Some districts have created initiatives such as providing laptops or iPads for home use along with parent training in high needs areas; additionally increased high speed internet access and extended broadband to remote areas is often necessary to address equity issues (Fleming, 2012). Parent training may also be particularly valuable as schools adopt the use of new learning and student management systems. Learning management systems allow users to avoid signing in and out of multiple applications and provide a centralized place for teachers to post learning resources and personalize student learning, as well as promote more student-oriented social and collaborative learning experiences (Remis, 2015). For example:

Evergreen School Division in Canada uses Edsby in K–12 to share lesson plans, assignments, classroom announcements, and other information with parents. Parents can access their child's attendance, grades, and report cards. Online groups can be created for parents and other members of a school community or advisory council. (Remis, 2015)

When new learning and/or student management systems are introduced within schools, administrators, teachers, support staff, students, and parents should participate in organized and ongoing training customized to their needs in order to maximize the benefits of these systems.

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