

Technology-Intensive School Initiatives: Establishing an Effective Partnership

What is the Tarrant Institute for Innovative Education?

The Tarrant Institute for Innovative Education (TIIE) at the University of Vermont partners with Vermont middle schools to integrate technology-rich, student-centered learning. TIIE staff works intensively with teachers and administrators -- during the summer and throughout the school year -- to help schools develop an infrastructure that supports effective middle school teaching practices and a culture that sustains educational innovation.

The Opportunities of 1:1 and School Change

Embarking on 1:1 computing to integrate technology into teaching and learning is fundamentally about school change. 1:1 computing programs provide all students with access to an Internet-connected device, promoting anytime, anywhere learning. Achieving the great benefits of such radical change – and avoiding the potential pitfalls – requires schools to become innovative organizations. All stakeholders must be thoughtfully engaged in the planning, implementing and evaluating of the initiative. But the payoff is not just a successfully implemented technology program; the structures and methods developed during a transition to 1:1 can be applied to just about any next bold change.

Foundations of Learning with Technology

TIIE believes that technology rich schooling can make learning more engaging, relevant and challenging for students – and teachers. It often requires rethinking what schools mean by the how, what and where of learning itself. TIIE's vision builds upon foundational middle grades practices that are responsive to the nature and needs of young adolescents, best summarized by *This We Believe*, an outline of essential practices to best serve young adolescent learners. In collaboration with our partners, we seek a shared understanding of the nature and needs of young adolescents and build organizational capacity to serve young adolescent learners. Upon this foundation of understanding students and how schools can respond to their needs, partners develop engaging learning opportunities that are challenging, personally meaningful to students and contribute to their personal efficacy. Our experience suggests that technology in the hands of leaders, teachers and students can enhance all of these foundational elements. And the transition to 1:1 can engage schools in fresh conversations about effective teaming, family involvement and formative assessment, among many others.

Designing Effective Professional Learning

“Intensive professional development efforts that offered an average of 49 hours in a year boosted student achievement by approximately 21 percentile points. Other efforts that involved a limited amount of professional development (ranging from 5 to 14 hours in total) showed no statistically significant effect on student learning.”

-- Professional Learning in the Learning Profession: A Status Report on Teacher Development in the United States and Abroad

Effective professional development is the engine of meaningful school change and improved teaching and learning. TIIE is guided by research from the National Staff Development Council that captures lessons learned in the last several decades about teacher learning that improves student outcomes. In

Professional Learning in the Learning Profession (see Chapter 1, in particular), the NSDC laid out principles of effective professional development that are relevant to a technology-intensive school improvement initiative. Accordingly, effective professional development should:

- be intensive, ongoing (measured in years), and connected to practice
- focus on student learning and address the teaching of specific curriculum content
- align with school improvement priorities and goals
- build strong working relationships among teachers
- be anchored by attention to students' thinking, the curriculum and pedagogy
- offer access to alternative ideas and methods; create opportunities to observe these in action; and promote reflection on the reasons for their effectiveness
- facilitate active learning among teachers
- provide opportunities for teachers to observe each other, plan collaboratively, review examples of student work, and present to colleagues and community beyond their school walls

Grappling with the challenges of becoming an effective teacher in a computing-intensive school, and to justify the considerable costs – in equipment, time, and opportunity – merits the best possible professional development. Indeed, without a clear commitment to an appropriate plan for teacher learning, TIE believes that resources are likely better directed toward other initiatives. On the other hand, those initiatives are unlikely to have significant impact on student learning without a considerable investment in teacher learning. In that sense, developing and implementing an effective professional development plan for technology integration prompts schools to address constraints on teacher learning that can serve them in future change initiatives.

Distributing Leadership and Responsibility

Becoming technology-rich is brand new for everyone. The breadth and complexity of tasks associated with becoming a computing-intensive school are beyond the capacity and expertise of traditional school leadership. Teachers hold essential knowledge of the concerns, strengths, vulnerabilities and aspirations for their evolving school. Therefore, TIE believes that a leadership team made up primarily of classroom teachers, joined by the building principal and educational technologists, is best positioned to create a plan for teacher learning, develop school technology policies, and monitor other critical facets of a technology transition, such as purchasing, infrastructure development, and community outreach. Similarly, teachers cannot reasonably be expected to know already how technology can best serve their students; perhaps more than ever before, teachers must regularly consult with students in order to create and manage technology-rich learning in and out of the classroom. Overall, schools need to become innovative organizations, constantly re-inventing themselves in light of rapidly evolving technologies.

A Plan Likely to Succeed

The primary responsibility of the school's leadership team is to fairly assess the needs of their colleagues, acknowledge the research on teacher learning, and design a professional development plan that the group believes has a high likelihood of success for their school. The plan must overcome often deep-rooted skepticism that teachers will be provided the time and other resources to fully implement change for the good of students. Although the needs of the school can shape the specifics of professional development activities, the level of commitment should reflect research-based standards, such as each teacher committing 50-80 contact hours each year to learn about and plan for technology integration. Such a lofty standard generally requires creatively redesigning how teachers and administrators use school time. Once such a plan is agreed upon by TIE and the school's leadership team, the partnership and the plan can begin. An effective plan generally contains many if not all of the following elements.

Staff Commitment to Effective Teacher Learning

- A 3 year commitment to intensive teacher learning
- 50-80 contact hours per year for teacher learning related to the partnership
- At least one ½ day facilitated release time monthly
- 2 additional meeting times per month devoted to learning plans
- 45 minutes of planning time per week for team/departments to share teacher and student work related to technology integration
- 4 to 5 days intensive learning outside the regular school year, such as a summer institute

Priority of Technology-Related Teacher Learning

- A school change agenda that prioritizes technology-related teacher learning
- Teacher learning time that is protected from other school commitments
- Ubiquitous (e.g. 1:1) access to technology for teachers and students

Reporting and Dissemination

- Presentations to school boards and other relevant local groups
- Posting examples of teacher and student work to the public via online media
- Presentations at regional and national conferences

Acknowledgements and Incentives

- Graduate credit or re-licensure credits
- Teacher stipends as needed to compensate for non-contract professional development time

Possible Learning Designs

- Team Common Planning Time
- Professional Learning Communities
- School-Based Workshops
- Classroom Coaching/Support
- Peer-to-Peer Tech Walks
- Site Visits to Example Programs
- Flex or Just-in-Time PD/Support
- Summer Institutes
- Local and Regional Conferences
- Action Research
- Lesson Study

Prerequisites for Partnership Development

All our partner schools are unique with regard to their initial resources and their aspirations. However, prospective partner schools should address three key questions before pursuing a partnership with the Tarrant Institute. *Is our school ready to embrace schooling designed for young adolescents as outlined in This We Believe? Is our school ready to develop a teacher leadership team to guide our school change and professional development strategy? Is our school ready to establish an intensive, focused, and ongoing professional learning strategy?* Partnerships built on a positive response to these questions can yield the lasting benefits to students, teachers, and communities at the heart of the Tarrant Institute's mission.