



## The Research That Drives Our Work

Before designing and building Teaching Channel Teams and its underlining set of suggested practices and protocols, several strands of educational research were consulted. The research blended video-enhanced professional learning (Sherin & Dyer, 2013)<sup>1</sup> with a diverse set of studies, including those from the learning sciences (Scardamalia, Bransford, Kozma & Quellmelz, 2012; Bransford, Brown & Cocking, 2000), adult learning theories (Lindeman, 1990; Knowles, Holton & Swanson, 2005; Brookfield, 1995), online teacher professional development (Lemke, 2013), and the production of pedagogical content knowledge (Wasley, Hampel & Clark, 1997a, 1997b).

As a result, video-enhanced professional learning is the foundation of Teams, and emphasizes both watching and analyzing one's self and others as part of reflective practice. When participating in video-based professional learning activities, the research reveals that teachers are better able to:

- Discover new possibilities for their practice (Sherin & van Es, 2009; Borko & Klingner, 2013; Erickson, 2013)
- See their practice more clearly, since they can view class happenings multiple times (Sherin, 2003, 2007)
- Pinpoint cause and effect between teacher and student interactions (Sherin, 2003, 2007)
- Notice student reasoning and sense making (Sherin & Han, 2003; Kazemi Elliott, Hubbard, Carroll & Mumme, 2007; Erickson, 2011)
- Collaborate with colleagues through discussions of common video artifacts (Borko, Jacobs, Eiteljorg & Pittman, 2008)

---

<sup>1</sup> To read a more exhaustive review of research that informs [\*Teaching Channel Teams, see Video and Teacher Learning: Tools, Tasks, and Outcomes\*](#) by Sherin and Dyer, 2014.

By engaging in relevant, timely, ongoing, and job-embedded productive disciplinary discourse that is centered on a problem of practice, Teams helps teachers sharpen their professional learning focus to what matters to them (see Gates, 2014). This type of focus on core issues that personally affect one's practice, echoes what scholars of adult learning have believed for many years (Lindeman, 1990; Knowles, Holton & Swanson, 2005): Adult learners are motivated to learn when there is a personal need and when their experiences are resonate with the learning at hand. Choice and voice in the direction are essential to growing one's practice.

Teachers who participate in Teams engage in knowledge-building communities (Scardamalia, Bransford, Kozma & Quellmelz, 2012). They access and share resources about their practice, as they continually refine and expand their expertise. Face-to-face and online collaboration have been shown to lead to greater learning outcomes (Lemke, 2014; Means, Toyama, Murphy, Bakia & Jones, 2010). This deeper learning, in turn, provides a strong foundation on which to build productive, professional disciplinary understandings and an expanded repertoire of practice (Wasley, Hampel & Clark, 1997a, 1997b).

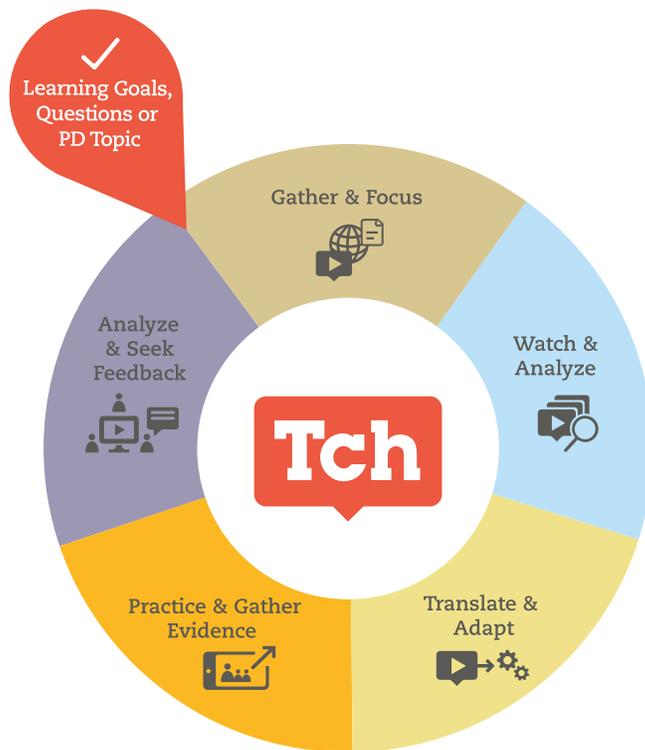
The research base is reflected in our Theory of Professional Learning, which consists of five key elements that can be approached at any point along the learning cycle:

- **Gather & Focus:** focuses on gathering and vetting videos and other resources related to a particular aspect of classroom practice to spur one's learning.
- **Watch & Analyze:** entails watching a video or reading an article, to provide a picture or model of what is possible. This also includes reviewing videos or resources, investigating and deconstructing particular teaching moves or strategies, and examining and discussing the impact of these teaching moves and strategies on students.
- **Translate & Adapt:** focuses on re-envisioning strategies or models to make them suitable for one's particular classroom context. It involves imagining and naming what success would look like in one's own classroom, with one's own students, within one's own discipline. While a great deal of professional development asks teachers to adapt particular strategies, we emphasize the real need to adapt materials and strategies for one's own context.
- **Practice & Gather Evidence:** asks teachers to practice a teaching move or strategy multiple times in one's classroom, revise the move or strategy as needed while

practicing, video tape the move or strategy, and gather student work to see the impact of their fledgling efforts.

- **Analyze & Seek Feedback:** involves critically examining one's own or a peer's videos by posing and discussing questions to identify strengths and areas for improvement. This questioning connects reasoning and conclusions to evidence of student thinking that is visible in the videos. Feedback and collegial dialog about particular dimensions in the video and about student work play a prominent role during this stage in order to facilitate the refinement of one's practice.

## Teaching Channel Teams Theory of Professional Learning



## References

### How We Learn

Bransford, J. D., Brown, A. L., & Cocking, R. R. (2000). How people learn.

Scardamalia, M., Bransford, J., Kozma, B., & Quellmalz, E. (2012). New assessments and environments for knowledge building. In *Assessment and teaching of 21st century skills* (pp. 231-300). Springer Netherlands.

### How Adults Learn

Knowles, M. S., Holton III, E. F., Swanson, R. A. (2005). *The adult learner: the definitive classic in adult education and human resource development*.

Leonard, L. E. (1990). *Friendly rebel: a personal and social history of Eduard C. Lindeman*. Adamant, Vermont: Adamant Press.

Brookfield, S. (1995). Adult learning: An overview. *International encyclopedia of education*, 375-380.

### How Professionals Learn Online

Lemke, C. (2013). A literature review: Online Teacher Professional Learning. Metiri Group.

Means, B., Toyama, Y., Murphy, R., Bakia, M., & Jones, K. (2010). Evaluation of evidence-based practices in online learning: A meta-analysis and review of online learning studies. Accessed 1/10/10 from <http://eprints.cpkn.ca/7/1/finalreport.pdf>.

### How We Learn from Video

Borko, H., Jacobs, J., Eiteljorg, E., & Pittman, M. E. (2008). Video as a tool for fostering productive discussions in mathematics professional development. *Teaching and Teacher Education*, 24(2), 417-436.

Borko, Hilda, & Klingner, J. K. (2013). Supporting teachers in schools to improve their instructional practice. *National Society for the Study of Education Yearbook*, 112(2), 274-297.

Erickson, F. (2010). On noticing teacher noticing. *Mathematics teacher noticing: Seeing through teachers' eyes*, 17.

- Erickson, F. (2013). Position paper. Submitted for Teaching Channel's Research and Design Conference, Northwestern University.
- Kazemi, E., Elliott, R., Hubbard, A., Carroll, C., & Mumme, J. (2007). Doing mathematics in professional development: Theorizing teacher learning with and through sociomathematical norms. In *Proceedings of the 29th annual meeting of the North American chapter of the international group for the psychology of mathematics education* (pp. 796-803).
- Kersting, Nicole B., Givvin Karen B., Thompson, Belinda J., Sangtaga, Rossella, and Stigler, James. (2012). Measuring Usable Knowledge: Teachers' Analyses of Mathematics Classroom Videos Predict Teaching Quality and Student Learning. *American Educational Research Journal*. DOI: 10.3102/0002831212437853, 1-22.
- Sherin, M. G. (2003). 1. New perspectives on the role of video in teacher education. *Advances in research on teaching*, 10, 1-27.
- Sherin, M. G. "The development of teachers' professional vision in video clubs." *Video research in the learning sciences* (2007): 383-395.
- Sherin, M. G., & Han, S. Y. (2004). Teacher learning in the context of a video club. *Teaching and Teacher Education*, 20(2), 163-183.
- Sherin, M., & van Es, E. (2005). Using video to support teachers' ability to notice classroom interactions. *Journal of technology and teacher education*, 13(3), 475-491.
- Sherin, M. G., & van Es, E. A. (2009). Effects of video club participation on teachers' professional vision. *Journal of Teacher Education*, 60(1), 20-37.
- Sherin, M.G. & Dyer, E. (2013). Video and teacher learning: Tools, tasks and outcomes. Teaching Channel Teams.

### **How We Build a Repertoire**

- Wasley, P. A., Hampel, R. L., & Clark, R. W. (1997a). *Kids and School Reform*. Jossey-Bass, Inc., Publishers, 350 Sansome Street, San Francisco, CA 92104.
- Wasley, P., Hampel, R., & Clark, R. (1997b). The puzzle of whole-school change. *Phi Delta Kappan*, 690-697.