

ANATOMY OF A LEARNING INITIATIVE

LESSONS FROM THE TEACHER PRACTICE NETWORKS OF THE CENTER FOR THE FUTURE OF TEACHING AND LEARNING

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I. MEETING THE CHALLENGE OF RIGOROUS NEW STANDARDS

The Common Core State Standards presented significant challenges to the education system from statehouses to classrooms. While most states moved quickly to adopt the CCSS, a number of states later rejected them. Forty-one states along with Puerto Rico ultimately adopted them, while nine states either continued with their existing standards or adopted standards similar to but not sanctioned by the Common Core Initiative.¹

While the politics of CCSS roiled statehouses, concern arose in the field about the demands that the new standards would place upon teachers to make deep shifts in their practices (Kober & Rentner, 2012). On the heels of No Child Left Behind and the resulting spate of scripted lessons, the CCSS swung the pendulum toward instruction demanding that teachers be well-informed in pedagogical content knowledge and design instruction that would engage students in discipline-rich materials and rigorous thinking. The Bill & Melinda Gates Foundation, among others, stepped in to provide supports for the shift to Common Core that states, districts, and schools could not provide for themselves. One such effort became the Teacher Practice Networks (TPN) of the Center for the Future of Teaching and Learning (CFTL) at WestEd.

Evolution of the TPN Initiative

Initial rounds of Gates funding supported 21 education improvement organizations² in disseminating standards-based resources around the nation. Later rounds of funding supported 14 more organizations to sustain the dissemination work, and additionally to concentrate on developing teacher leadership as a means to bring the standards to life in classrooms. The Gates foundation considered this later phase—which ramped up the goals of the initiative—to be a test of the research-based theory that “teachers learn best from one another” and that teacher leadership within schools “can positively impact instruction.”³

The results of the initiative lent grounding to this theory. The 14 later grantee organizations supported the development of more than 1,000 teacher leaders who helped 10,000 of their colleagues use standards-aligned practices in their classrooms.

The table below compares the foundation’s goals and expectations for the initial 21 grantee organizations with the more ambitious goals and expectations for the later 14 grantees. The later grantees did not work independently but rather were organized into two networks led by the CFTL. This paper focuses on the later networks of 14 organizations that addressed more ambitious goals.⁴

¹ <http://www.corestandards.org/>

² The CFTL refers to all TPN grantee organizations as Technical Assistance providers. This report uses that term along with “education improvement organizations.”

³ <http://k12education.gatesfoundation.org/blog/teacher-practice-networks-collaborate-advance-standards-aligned-practices/>

⁴ See the Appendix for a list of the 14 organizations of the two networks, the focus of their work in the TPN, and their district partners and service areas.

Table 1. The Evolving Initiative

Funder goals	Expectations for grantee organizations	Initial 21 grantees <i>Operated individually</i>	Later 14 grantees <i>Coordinated networks</i>
Raise awareness ↓ Implement standards ↓	Curate and create standards-aligned resources	✓	✓
	Disseminate resources widely	✓	✓
	Form partnerships with districts and schools		✓
	Work in coordination with CFTL as intermediary		✓
	Develop teacher leaders capable of facilitating professional learning for CCSS		✓
	Support classroom teachers in using standards-aligned practices		✓
	Contribute to network-wide evaluation		✓

Analytic lenses on the Teacher Practice Networks

Two lenses on the TPN reveal how and why this initiative was effective in advancing awareness and implementation of the new standards:

One lens is on the **anatomy** of the initiative. By anatomy, we mean “a study of the structure or internal workings of something,” such as an institution or society.⁵ This paper dissects the structures of the TPN, from the architecture of the overall initiative to the micro-designs for professional learning within schools, to examine the functions of each. The analysis shows how the layers of structure worked together to achieve the goal: to transform Common Core standards from their origin in policy (and politics) to their expression in classroom practice.

The anatomy lens alone does not fully explain the TPN’s effectiveness. We also examine the TPN as a **learning initiative**. This lens reveals characteristics of culture and leadership that animated the structural elements in ways that promoted reflection, learning, and improvement at the teacher, organization, and network levels.

Our study of the TPN shows that its structural and cultural elements functioned effectively as an **infrastructure for educational improvement**. We conclude with a reflection on the need for steady investment in such infrastructures.

⁵ <https://en.oxforddictionaries.com/definition/anatomy>. This definition does not refer to the branch of life science known as anatomy, but refers instead to studies of the structures and internal workings of events, institutions, processes. The on-line OD offers these examples: ‘These two cases, in the context of the changing face of Detroit, present an anatomy of the white-ifying of hip-hop’ and ‘Whatever the motive, federal misfeasance is getting the blame in many media anatomies of the catastrophe.’

II. DATA SOURCES AND RESULTS

Evaluation data show that the TPN initiative delivered on its promise of developing teacher leaders and supporting those TLs in helping their colleagues use CCSS-aligned materials and practices in their classrooms.⁶ These accomplishments warrant an elucidation of its anatomy.

Design of the evaluation

The move to ramp up the goals for the initiative brought new expectations for evaluation. According to the CFTL director, “an important component of [networking the organizations] was agreeing to shared metrics...I think the culture of grant making is changing and instead of just making all of these individual grants, there is much more of an interest in building shared knowledge across like grants.” The CFTL leaders posed a number of parameters for an evaluation that would produce shared knowledge. It should:

- Have value for and be of direct benefit to the grantee organizations and for the teacher leaders carrying out the work
- Honor the variations in the grantee organizations’ subject matter foci and materials, methods of developing and supporting teacher leaders, and ways of teaching teachers
- Involve organizations and teacher leaders in data collection and analysis, while not imposing undue burden on their budgets and time
- Inform the CFTL about grantee organizations’ progress, accomplishments, and challenges in relation to the TPN goals
- Inform the Gates Foundation about the return on its investment in the TPN
- Generate findings that could inform the field about the value of networked teacher leadership as a contributor to implementation of rigorous standards for content and pedagogy

These parameters presented a challenge for the design of the evaluation. For example, while a standard measure could potentially yield evidence of network-wide outcomes, such a metric would not be sensitive enough to illuminate organization-specific contributions to shifts in practice or to inform disparate organizations about their strengths and weakness. Ultimately, the evaluation design included two elements: 1) A suite of five Common Measures that applied to all organizations, and 2) Network-specific studies that each organization carried out on its own.

1) The **suite of Common Measures** was composed of five data collection instruments and processes involving all grantee organizations. The shared measures permitted evaluation at the TPN network level while supplying individual grantee organizations with data they could use to make the case for their own progress toward the TPN goals.

The suite of measures was developed over time with the involvement of the organizations.⁷ The table below provides an overview of the measures and how they relate to the goals of the work.

⁶ Technical evaluation reports provide detailed analyses of year-by-year results on all measures.

⁷ Only the last cohort of 6 organizations used the full suite of 5 measures for both funding years. See the Appendix for more information about the Common Measures.

Table 2. Expectations of Grantees and the Suite of Common Measures

Expectations for grantee organizations	Five Common Measures as sources of data
<i>Process goals</i>	
Organizations develop teacher leaders and support their work with teachers	1. Teacher Leader Annual Survey
Teacher leaders carry out “light touch” work, reaching 15,000 educators over two years	2. Teacher Leader Light-Touch logs & analytics data for on-line/social media
Teacher leaders carry out “high touch” work, serving 500 teachers over 2 years	3. Teacher Leader High-Touch Activity logs
<i>Expected outcomes</i>	
The high touch work is of value to participating teachers	4. Teacher Exit Survey
Participating teachers are able to apply what they learn to their practice	5. Change in Practice Exploratory Study

2) On a much smaller scale, grantee organizations were expected to conduct **network-specific evaluation studies**. Networks submitted evaluation reports as addenda to their narrative final reports to the CFTL.

Results: Benefits to teacher leaders and teachers

Evidence from the evaluation indicates that the participating organizations recruited experienced teachers and developed them as leaders in effective ways; that teacher leaders gained knowledge, new skills, and confidence enabling them to lead cycles of professional learning for thousands of their colleagues; that participating teachers found the learning opportunities and access to CCSS resources valuable; and that teachers employed CCSS-aligned practices in their classrooms.

Developing and supporting teacher leaders

Two TPN networks of 8 and 6 organizations, respectively, developed and supported a total of 1,080 teacher leaders.

The result: Teacher leaders gained knowledge of high leverage classroom practices, access to high quality standards-aligned resources, and both skills and opportunities for teacher leadership. These benefits equipped teacher leaders to strengthen their own teaching and to gain the confidence to lead professional learning for their colleagues.

Evidence from the annual teacher leader survey shows the multiple ways they benefitted from their organizations’ TL development programs.

- Developed leadership skills (*Mean = 4.3⁸*)
- Gained knowledge of adult learning (*4.3*)
- Had more opportunities to influence and support the professional learning of their colleagues (*4.4*)

⁸ On a 5-point Likert scale, with 1 low and 5 high.

- Learned more about finding high-quality tools and resources that support their standards-aligned practice (4.4)
- Became more confident developing curriculum and strategies aligned to these standards (4.2)
- Became more effective at facilitating workshops and meetings (4.4)
- Became more confident as a mentor and/or instructional coach (4.4)

Network-specific evaluations revealed additional benefits, such as new skills and confidence in leading on-line professional learning, access to a new community of practice, greater legitimacy and confidence for leadership roles in their departments, schools, and districts. Teacher leaders emphasized in their comments how important it is to improve their own practices, serve as a model for others, and lead in a spirit of collegueship. One teacher described this as knowing “how to be a team player.”

Most teacher-leaders (70-80% depending on the cohort) had been teaching in the classroom for more than 11 years, and around 60% also had more than 3 years of experience as teacher leaders. Thus, it can be assumed that they brought a degree of discernment to the professional supports they received from their TPN organizations. We infer that the TPN opportunities added significant value to their professional repertoires.

“Being a teacher leader allows you to see what is going on in the profession, outside of your classroom and individual school site...and forces one to be reflective of one's own practice because you are going to be asked to provide concrete examples for the teachers that you are mentoring. It also requires that you collaborate with other teachers from different areas, so one cannot help but learn about others' practices. This sharing of knowledge is both affirming and lifts the bar, encouraging one to constantly improve.”

–TPN teacher leader

Disseminating resources through “light touch” activities

Teacher leaders worked in multiple ways to distribute high quality resources to teachers in order to promote awareness of CCSS and similar state standards. Grantee organizations were expected to support the teacher leaders in using a range of dissemination strategies, with an emphasis on technologies for widespread reach. CFTL set targets of 10,000 educators reached for the network of 8 grantee organizations (or 70,000 total), and 15,000 reached for network of 6 grantee organizations (or 90,000).

The result: TPN networks exceeded their targets in the scale of their distribution of resources.

Table 3. Scale of Dissemination to the Field

Outreach Channel	2-Year Totalsⁱ
Conference presentation (in person)	21,810
File sharing (e.g., Google Drive, Box, Dropbox)	26,008
Mass email (e.g., E-newsletter)	1,056,347
Printed materials	35,190
Social media (e.g., Twitter, Facebook, Instagram, Pinterest, LinkedIn, etc.)	703,558
Video (e.g., YouTube, Vimeo, Edthena, etc.)	54,871
Virtual presentation (e.g., webinar, audio, podcast, Google Hangout, etc.)	1,603
Website posts (e.g., blog post)	207,449

Facilitating teachers’ professional learning through “high touch” work

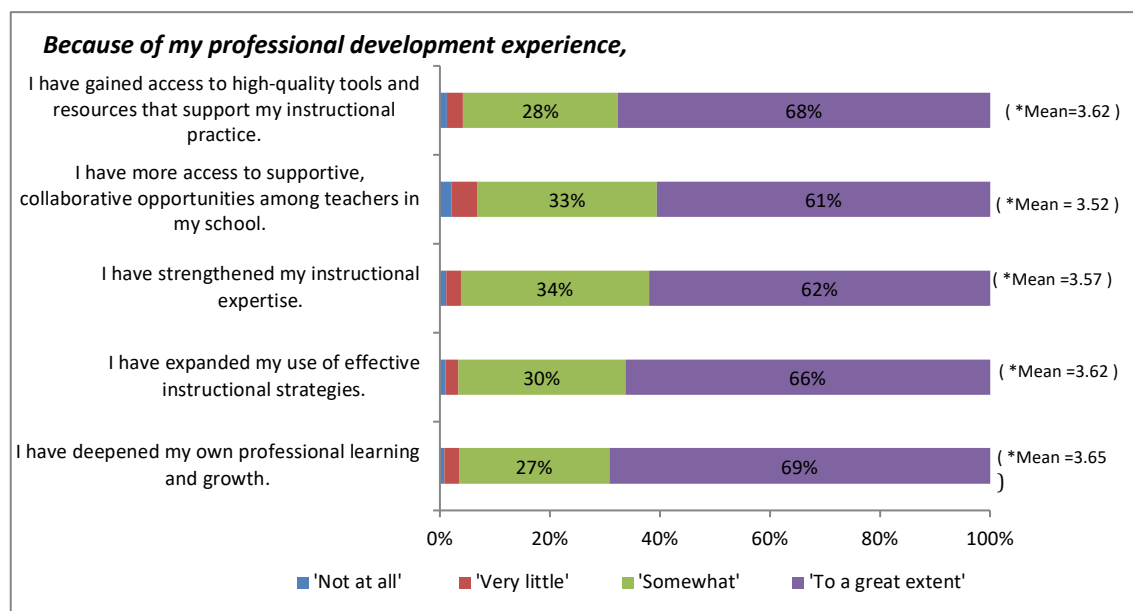
Teacher leaders facilitated professional learning activities for a total of 10,530 teachers across the 14 organizations. This “high touch” work aimed to provide teachers with knowledge and well-vetted resources to support shifts in classroom practice.

The result: Teachers participating in high-touch learning activities found their work with teacher leaders valuable and gained important benefits from it. The professional learning helped teachers—and some schools—shift classroom practices toward greater alignment with new content standards.

Professional learning of value

On the Participant Exit Survey, nearly two-thirds or more (61% - 69%) of teacher respondents gave the highest rating (“to a great extent”) for five areas that contribute to instructional improvement. Another quarter to one-third (27% - 34%) of teachers said that their professional development experience was “somewhat” valuable.

Figure 1. Teachers’ Ratings of the Value of the Teacher Leaders’ High-touch Work



Additionally, teachers reported that as a result of the work with teacher leaders, they had higher expectations for students (*mean = 3.61 on a 4-point scale*) and were more confident in their ability to improve students’ learning (3.61). Most teachers also reported feeling more knowledgeable (3.39) and confident (3.48) about teaching for college- and career-readiness.

Comments on the TL survey provide examples of teacher learning occurring at the group and school-wide levels:

This year, the ELA team (which covers grades 6-12 at my school) made it a consistent practice to track students' reading levels at beginning, middle, and end of year, and track growth. This has informed what texts they choose or recommend for students at a whole class, group, and individual level. These reading levels were shared with the whole staff, and even teachers outside of the ELA department have said they found it helpful, or that it helped them choose appropriate texts for their students or instruction.

The teachers in my cohort really appreciated reviewing student work. We graded our student writings using the state issued writing rubric. Many teachers felt this was also beneficial. My collaborative writing lesson was filmed and shown to my group. They appreciated me sharing this with them and began using this strategy in their classrooms. Above all, the teachers in my cohort grew as professionals because they took ownership in enhancing their instructional practices and resources so that it could benefit their students.

Some network-specific studies also examined the benefits to participating teachers. Their results are consistent with those from the Common Measures surveys—e.g., teachers gaining new classroom strategies and confidence, raising their expectations for students, and working more collaboratively on new approaches, sometimes across schools.

Using standards' aligned practices in the classroom

The exploratory change-in-practice study involved a total of 161 paired pre- and post- observations, distributed across three CFTL-approved instruments chosen by organizations in the TPN networks. Most data derived from classroom observations, and a smaller amount from analyses of teachers' assignments.

Classroom observation studies

- 92 pre-post pairs: Instructional Practice Guides⁹ in English Language Arts and History/Social Science
- 29 pre-post pairs: Instructional Practice Guides in Mathematics

The result: Nearly every teacher participating in this study was observed using practices aligned with standards. While nearly half were already using standards-aligned practices on the first observation, more than half shifted their practices into closer alignment with standards as a result of this project.

Detail:¹⁰

- 1) The proportion of teachers who were rated highly on the post-observation ranged from 91 – 100% on the multiple items on the ELA-HIST guide, and from 91 – 100% on the multiple items of the MATH guide.

⁹ Achieve the Core: https://achievethecore.org/content/upload/Aligning%20Content%20and%20Practice%20-%20The%20Design%20of%20the%20Instructional%20Practice%20Guide_SAP_July%202017.pdf

¹⁰ Technical evaluation reports describe the studies and provide full breakdowns of results for each item on the instruments.

- 2) For both ELA-HIST (53%) and MATH (54%), slightly more than half the teachers improved from the pre- observation to the post, when increases are averaged across all items. Of these, about two-thirds improved by 1 point (on a 4-point scale), and about one-third improved by 2 or 3 points.
- 3) Of the slightly less than half of the sample that did not improve from pre- to post-, nearly all (92% of ELA-HIST, 97% of MATH) were also rated highly on the pre-observation, when increases are averaged across all items.
- 4) A small minority of teachers (5% of Math, 10% of ELA-HIST) received lower post-ratings on one or more items.

Study of assignments

One organization studied the design of writing assignments that teachers devised for students.

- 34 pre-post pairs: Jurying Rubric from the Learning Design Collaborative¹¹

The result: On the 3-point scale of the Jurying Rubric, about two-thirds of the 34 teachers' assignments improved in their design from the pre- to the post. Of these, three-fourths improved by 1 point (middle to high) and a quarter by 2 points (low to high). Of the approximately one-third that were rated the same on pre- and post-, more remained at the lower end (25% of the whole sample) than remained at the middle or high levels.

III. ANATOMY OF THE TPN

“Form follows function” is a universal principle of design. It means that structures are best designed in the service of what they are to accomplish. Analysis of the structures of the TPN reveals this principle in practice.

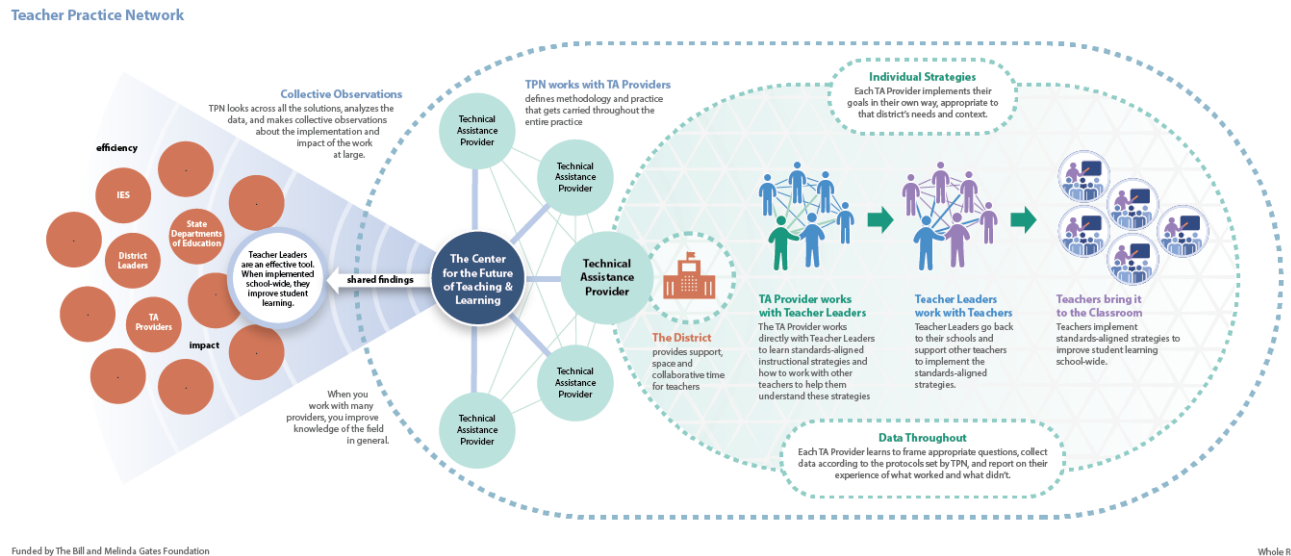
The TPN comprised three layers of structure:

- Networked improvement organizations. With the CFTL as the coordinating hub, networks of 8 and 6 (respectively) improvement organizations designed and carried out the work.
- Partnerships. Within the networks, each organization partnered with one or more school districts. The partnerships connected the external organizations to the school system, forming the context for development of teacher leaders.
- Structures for teachers teaching teachers. Within the partnerships, districts provided the settings for the innermost layer of the anatomy: workplace-based structures for teacher-led professional learning.

¹¹ See https://ldc-production-secure.s3.amazonaws.com/resource_files/files/000/000/246/original/LDCModuleCurriculumAlignmentRubric.pdf.

The diagram below portrays this multi-layered design, with improvement organizations characterized as Technical Assistance Providers. The left side of the diagram shows that the TPN reached out to the broader education environment to enrich it with findings generated from the work taking place within the network.

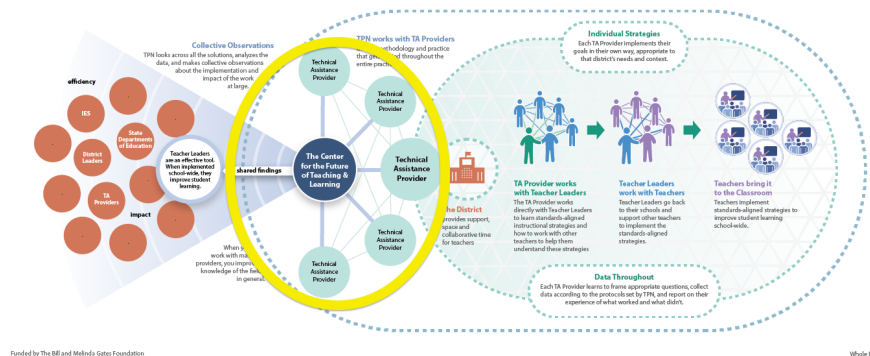
Figure 2. Overall design of the Teacher Practice Networks



1. Networked improvement organizations

The networks formed by the CFTL and grantee organizations, displayed in the highlighted area below, subsumed the district partnerships and governed the work.

Figure 3. The Network of Organizations



Networks have their own anatomy.¹² Commonly, the core components are **hubs**, **nodes** (or **affiliates**), and **links**. In social and organizational networks, hubs perform the function of building communities that involve both collaboration and innovation, and they facilitate the flow of knowledge from diverse affiliates such that all network members can benefit. Hubs orchestrate the work toward shared goals while negotiating adaptations that affiliates make for their contexts. Typically, network nodes are sites for work as well as points of connection.

A key advantage of the network structure is that it draws upon the diverse assets of affiliates while focusing those assets on a shared problem or mission. Thus, a network structure scales up the impact of any individual organization. In reciprocal fashion, joining a network brings benefits to each affiliate because guidance from the hub and interactions with other affiliates around the shared mission build each organization's capacity in ways not possible without those connections.

Networks only achieve these advantages through links, which permit flows of information, knowledge, ideas, innovations. Typically, hubs and affiliates form strong two-way links. As depicted by the bold blue lines in the diagram, these are sometimes called "hub-and-spoke" or "wheel" network structures. Additionally, nodes/affiliates often link to one another without involving the hub; the lighter lines in the diagram portray this "spiderweb" pattern of network links.

Functions of the CFTL as hub

In the role of network hub, the CFTL contributed core functions that did not exist in earlier grants absent the network structure.

Coordinating organizations' efforts. To launch the networks, CFTL convened the organizations' leaders face-to-face in order to promote shared expectations about the goals and to begin cross-organization dialogue. Additionally, the CFTL led the common evaluation design and created templates for evidence-based reporting.

Facilitating reflective practice and improvement. CFTL leaders placed a high priority on organizations' learning from reflection on their experiences and on evaluation data. CFTL also facilitated organizational learning in multiple ways, including monthly check-in calls and on-line shared learning events.

Raising the profile of the work and informing the field. The network structure contextualized each organization's work as part of something bigger; this permitted a unified voice that amplified messages about the work. The CFTL drew from findings and lessons learned to inform the field of the benefits of teacher leadership, the learning cycle as a structure for professional learning, and other highlights of the organizations' work. Channels included the CFTL's *CenterView* series (<https://thecenter.wested.org/our-work/tpn/>), national conferences such as Learning Forward's annual meeting, invited talks, and web-based and social media outlets. The CFTL also collaborated with organization leads and supported their sharing of accomplishments with the field.

¹² There is a dizzying amount of research and writing about networks, much of it about networks of people rather than networks of organizations. Material in this section comes primarily from Dhanaraj & Parkhe, 2006; Everett, 2011; Toivonen & Friederici, 2015; and Wohlstetter, *et al.*, 2014.

Function of the technical assistance organizations as nodes

The organizations funded as technical assistance providers were positioned as the nodes in the TPN. Their function was to deliver the work coordinated by the CFTL, i.e., to build the teacher leadership capacity needed to disseminate resources and facilitate professional learning for teachers.

Within that broad responsibility, each organization was expected to accomplish the work in ways that capitalized upon their existing assets and expertise. All were established, well-regarded organizations that promoted research-based, standards-aligned materials and practices. However, each had a distinctive mission, identity, and way of doing work. They ranged widely in their content focus and pedagogical niche. Some concentrated on generating content-specific curriculum and materials, while others supported high-leverage teaching practices that crossed subject areas. Some worked in single large urban districts, while others extended their reach across multiple districts or states.

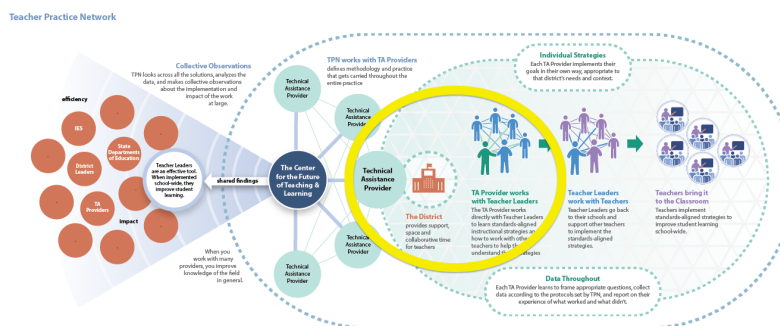
Evolving functions of links

Early in the TPN networks' formation, the CFTL's coordinating role reinforced strong connections with individual organizations. These links functioned as two-way conduits for information, guidance, data, questions, and reflection, as is typical of the hub-and-spoke structure. Over time, as the member organizations learned about one another's work through shared learning events, more cross-communication occurred among the organizations. These increases in the number and directionality of links (i.e., the "spiderweb" pattern) permitted greater flows of knowledge as well as formation of new professional relationships.

2. Inside the networks: Partnerships between organizations and districts

The CFTL expected each technical assistance organization—each node in the larger network—to operate within the context of one or more district partnerships, as shown in the highlighted area below. Partnerships were formed through formal agreements between the TA providing organizations and district leaders and were maintained through ongoing dialogue. Partnership structures varied in ways that reflected organizations' approaches and district contexts. Some TA organizations partnered with system organizations that served dozens of small rural districts across one or more states; others partnered with several districts in a city, state, or multiple states; and some focused on one city school system, such as New York or Chicago. Regardless of the arrangement, the partnership structure fulfilled a vitally important role in the TPN.

Figure 4. Organization-District Partnerships



Function of TPN partnerships: Transform standards from policy to practice

In the TPN, the primary function of the partnerships between TA organizations and districts was to carry the CCSS into the schooling system where they would take a new form—the form of classroom practice.

Standards are adopted at the level of state policy. State houses and classrooms stand far apart: policy is in the form of language, and practice is in the form of action. Constellations of educational improvement organizations populate the space between statehouses and classrooms. These organizations dedicate their resources to translating standards from the language of policy into resources—research, trainings, resources, and materials—that can move the standards closer to the form of practice. School improvement literature refers to these external¹³ organizations as intermediary organizations (Peurach, 2016) because they connect school systems with resources they need but do not have capacity to acquire on their own (Honig, 2004; Wohlstetter, et al., 2014). At the same time, school systems have assets that external improvement organizations do not have: they operate classrooms, employ teachers, and are held accountable for putting standards policy into practice. The districts provide the contexts for teacher learning and change. Thus, the external improvement organizations and system organizations (e.g., districts) need one another in order to effect the transformation from state standards to standards-based practices.

The vital role of teacher leaders

Teacher leaders worked at the intersections of the TA organizations and the districts. Their role was vital to the partnerships' function.

Teacher leaders as boundary spanners. In contrast to intermediary organizations that send in their own experts for short periods and then depart, the TPN organizations invited teachers from the districts into their organizations to become leaders for instructional change. In the TPN organizations, teacher leaders gained access to specialized resources and professional learning opportunities geared toward their leadership development: new resources to adapt for their classrooms and vet for their colleagues, training and practice in the arts of coaching and other forms of teaching teachers, and opportunities to learn new technologies for distributing practical resources to the field. Additionally, the scale of the TPN organizations brought teachers from multiple schools (and sometimes districts or even states) together in communities of practice where they could share learning and problem solving. These were assets for leadership development that their own districts could not provide.

With a foot in the district and a foot in the TPN organization, the teacher leaders embodied the intersection of knowledge from the field and knowledge from local practice and context.

Teacher leaders as mediators. The teacher leaders were not passive conduits as they spanned these boundaries. Rather, they acted as mediators in ways that impacted both the improvement organizations and the partner districts. For example, teacher leaders imposed professional judgment on resources to vet their utility before adapting or passing them along to colleagues. The comment below reveals the criteria that one teacher imposed on resources she gained through her leadership development work.

¹³ Some of the largest districts include semi-autonomous improvement organizations within their aegis. One such organization participated in the TPN. This organization also reached out to serve districts in other states and in other ways functioned as an intermediary.

Her criteria reflect knowledge of standards, learning research, and practice, combined with knowledge of local conditions, combined with her personal values as an educator:

Before disseminating resources, the questions I ask myself are these: How easy is the resource to navigate, and how easy is it to find what I need there? How generalizable or malleable/adjustable is the resource? How reliable, relevant, and current is the resource and the creator/source of the resource? ... The personal preferences that come into play when I'm looking for resources are these: I prefer resources that relate to the humanities and promote peace, understanding among diverse groups, and collaboration. I prefer free or extremely inexpensive resources because I'm a poor teacher in a poor community with very, very limited resources. I prefer resources that utilize multi-sensory approaches such as art, music, etc., because everyone learns best if they get the information in a multi-sensory way. I prefer well-researched resources that address the academic standards we are responsible for because we don't have any time to waste. Everything speaks, and should be purposeful.

A few TPN organizations limited teacher leaders' roles in the first year, e.g., by asking TLs to contribute to part of a workshop led by an expert from outside the classroom. These organizations discovered, however, that teacher leaders brought unique knowledge about teachers and their work, about classrooms, and about school and district contexts. The organizations learned to position TLs as advisors who could help them design more valuable resources and strategies.

In sum, teacher leaders served as a pivotal mechanism in the mutual adaptation that occurs as policies reach the classroom level.ⁱⁱ

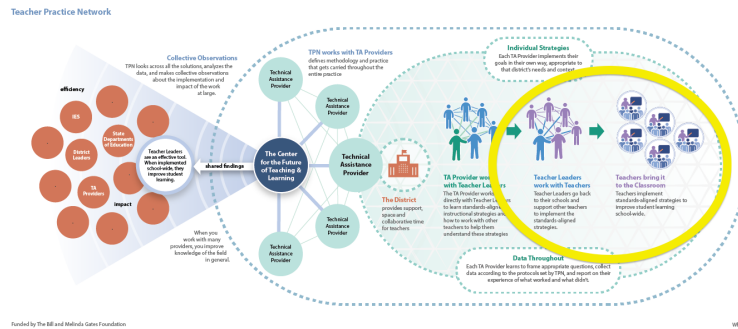
Mutual capacity building

The TPN partnerships created win-win arrangements that helped both partners build capacity. The districts gained teacher leadership development and teacher-led professional learning in service of district improvement goals. The intermediary organizations gained contexts for classroom-level implementation as well as a laboratory from which they learn from the teacher leaders. Perhaps most importantly, the partnerships' focus on teacher leadership enriched the human capital and collective knowledge base of both the intermediary organizations and the districts.

Inside the partnerships: Teachers teaching teachers

Within each partnership, teacher leaders fulfilled the core function of the TPN: facilitating professional learning that could help their colleagues use standards-aligned materials and practices in their classrooms. The highlighted segment below displays this sphere of activity.

Figure 5. Teacher leaders teaching teachers



Micro-structures for teacher learning

While traditional professional development structures such as one-time workshops were sometimes used, other more effective structures predominated. These included **professional learning community (“PLC”) meetings** held at regular intervals for consistent cohorts of teachers; **classroom modeling** where the TLs invited their colleagues to observe practice; and **one-on-one coaching**, which included planning, observation, and debriefing. Based upon lessons learned from the more disparate structures for professional learning in the initial network of 8 organizations, the CFTL asked the 6 organizations of the final cohort to structure the professional learning so that teacher leaders worked over time with groups of 10-20 colleagues.

Within these micro-structures, most teacher leaders facilitated a curriculum of professional learning that engaged their colleagues in **cycles of reflective practice**. Teacher leaders provided inputs (e.g., new materials and strategies), helped teachers adapt them to their classrooms (e.g., planning, modeling, coaching), and facilitated teacher reflection (e.g., observing, analyzing student work) leading to a new cycle.

Layers of anatomy functioning together

Each structural component of the TPN fulfilled an important function:

- Creating **networks of TA organizations** helped to focus their improvement work on a shared goal and to scale the impact beyond what any one could reach alone, while at the same time capitalizing on the distinct strengths of each organization.
- **Organizations’ partnerships with districts** provided teacher leaders with access to external riches of specialized knowledge, resources, and communities of practice not available to them inside their workplaces, and also created supportive district contexts for the teacher leaders’ work.
- PLCs and other **structures for teacher learning** created the settings that actualized the goals of the TPN—to help teachers put standards-aligned practices into place in their classrooms.

Connective tissues among these three layers—the **conduits of communication** between and across the CFTL and multiple TA organizations, the **teacher leaders that spanned the boundaries** between their districts and the improvement organizations—enabled the whole of the TPN to work in coordinated fashion to channel complex standards the long distance from statehouses into classrooms.

IV. THE TPN AS A LEARNING INITIATIVE

“The whole story of the TPN is the fact that we were helping people create meaningful adult learning cultures, period.” - CFTL hub leader

Organizational structures can make certain kinds of functions possible, but on their own, structures do not produce results. Rather, **qualities of culture and leadership animate structures and shape their functions**. From the moment the TPN formed, it was operated deliberately as a learning initiative, i.e., an initiative that improved in its design and its functioning for the purpose of achieving the goals.

Creating alternative professional cultures

The design of schooling, ironically, has produced an occupational culture that tends to limit teachers’ professional learning and growth, rather than promote it (Gamoran, et al., 2005). Studies over several decades have highlighted the flatness of the profession and teachers’ persistent individualism and conservatism with respect to innovations in their practices (Lortie, 1975; Hargreaves, 1980 & 2009), as well as teachers’ preferences for autonomy and privacy (Little, 1990). While teachers often trust and value professional learning led by expert colleagues more than they do PD delivered by non-teachers, it remains true that occupational norms can disrupt collegial interactions between teachers and teacher leaders—particularly when they share a workplace (Conley, 1989; Feiman-Nemser & Floden, 1986).ⁱⁱⁱ Teacher leaders can be reluctant to share their ideas because they don’t want to tell teachers—who are their equals—what to do. Similarly, teachers can be reluctant to learn from teacher leaders because they don’t want to be told—by an equal—what to do (Little, 1990; Wenner & Campbell, 2017; York-Barr & Duke, 2004). These forces act powerfully on educational improvement initiatives. In fact, many improvement efforts, including the TPN, can be seen as attempts to alter these occupational norms by promoting teacher leadership, collaborative learning, and a stance of reflective inquiry in the classroom (Wei, et al., 2009; Vescio, et al., 2008).

Within the TPN, recognition of these persistent occupational norms meant that organizational leaders and teacher leaders alike worked to create alternative cultures that honored teachers’ work and reintroduced them to the joys of teaching and of learning.

Creating safe spaces for learning

Pressure to master the complex, sometimes controversial CCSS followed on the heels of the harsh accountability measures of NCLB. In this climate, members of the TPN network knew that creating non-judgmental spaces for dialogue would likely contribute to their success. Creation of safe spaces for learning began with the CFTL, where the leaders deliberately framed their work so as to, in their words, “maintain a collegial role” and avoid judging TA organization leaders, whether during a collective learning event or one-on-one check-in.

Similarly, organization leaders strived to set up their partnerships as safe spaces for collaboration. One organization leader said, “We learned that setting up a safe space for ourselves, our [district] partners, and the teachers is important.” She continued:

With the Teacher Leaders, the three organizations [the grantee and two partner districts] emphasized the same messages: this is a steep hill, we will do it together, it is okay to take risks, and there is no judgment. We and the TLs set up the same environment for cohort teachers, bolstering their confidence in themselves as teachers and in the strategies we provided. Being thoughtful about and taking the time to create such an environment for teachers when they are being asked to step out of a comfort zone and try something new is essential.

Organizations also emphasized the importance of safety in teacher-teacher interactions. One leader commented that “observational methods” such as the IPG tool used for the Common Measures study require not only training and support, but also teacher leaders “creating safe spaces for teacher collaboration.” Another explained that that the culture that animates PLCs matters a great deal:

*When looking at student work is framed as formative assessment within an inquiry framework, when the student work provides the evidence to answer your shared question, it is probably the most effective structure for building an intentionally collaborative community of practice. **However, if looking at student work feels like an assessment of the participating teacher, if anyone feels singled out for failure, this can also be the single most disruptive structure in developing a community of practice.** [Emphasis is in the original.]*

Teacher leaders, similarly, sought to develop trusting relationships with their colleagues as a foundation for the teaching-learning relationship.^{iv} One said, “I collaborate with the team and have developed a rapport of trust, which in turn allows the teachers on my team to better envision without feeling that they are being judged.”

Teacher leadership: Rekindling the human joy of learning and sharing

A number of studies of teacher leadership have pointed out that teacher leaders can be uncomfortable in their roles (Smylie & Denny, 1990; Wenner & Campbell, 2017) because of the norms of autonomy and the “egalitarianism ethos” of the profession (Cheung, et al., 2018). However, studies also point to the positive attributes of teacher leaders and connections between teacher leadership, teaching, and professional learning. York-Barr and Duke (2004) show that effective teacher leadership derives from a background as an effective teacher, and that potential teacher leaders are those who “assume a learning orientation in their work” (p. 289). Poekert (2012) cites a number of studies showing that teacher leaders provide learning opportunities for their colleagues, and in so doing, learn more themselves. Further, studies show that teacher leadership results in positive feelings of confidence and efficacy (York-Barr and Duke, 2004; Wenner and Campbell, 2016), and that teacher leaders have a tendency toward open-mindedness, optimism, and enthusiasm (Danielson, 2007; Poekert, 2012).

Our own studies of teacher leadership have produced a conception of teacher leadership that involves dynamic, self-sustaining interactions among the processes of professional learning, teaching, and leading. These related processes tap into underlying human attributes that, we believe, are often extinguished by occupational norms, but can be rekindled in pro-teaching cultures. Teachers invited into leadership within such cultures enjoy positive experiences and effectiveness as leaders (Lieberman &

Friedrich, 2010; Heenan, 2009; Stokes, et al., 2017). We saw evidence of these powerful dynamics in the TPN organizations.

“I’m constantly sharing what may have gone well in my classroom with my colleagues...I have taken on responsibilities beyond my contractual obligations (and I love it).”

“I want to reach out not only to the kids in my class but also to rural teachers like me... I am really excited about the prospects of reaching out.”

“I am passionate about sharing and gaining knowledge. I love meeting with other teachers and sharing ideas, strategies, struggles, and successes.”

- Three teacher leaders

In this conception of teacher leadership, *learning* is the core process that can ignite a teachers’ leadership potential. By learning, we do not mean uninspired training in the guise of “PD.” Rather, we mean learning in a culture where the experience is meaningful and impactful for the learner (i.e., the teacher), intellectually engaging, even joyful. Universally, authentic learning drives a person to want to *continue* learning—and inspires a person to want to *share* what one has learned in order to spread the joy.

These drives to learn and to share are basic attributes of being human. For teachers, the drive to share with colleagues stems from the joy of serving students better and from a sense of professional responsibility to inform others in similar roles. Thus, **we conceive of teacher leadership as a specialized—and joyful—expression of an innate human desire to learn and to share what one has learned.**

The TPN teacher leader survey, along with member organizations’ network-specific evaluation studies, provide evidence that these same dynamics— experiencing joy in learning and teaching, classroom warranted leadership, and sharing with peers—occurred in the pro-teaching cultures of the TPN organizations. The implication is profound: Any teacher who is given transformative opportunities to learn has potential to become activated, and continually re-activated, as a teacher leader.

Network leadership for organizational learning

“The staff of CFTL was extremely helpful as thought partners as our teacher leadership work took shape. We often felt that we benefitted from their higher-level view of our work. They helped us see the areas in which we should direct our resources and those ideas that we should leave behind. We also benefitted greatly from the flexibility allowed in our project and felt encouraged to evolve our work to be its most effective.” – PI of organization

In their role as network hub, CFTL network leaders shaped a culture of learning and organizational improvement by modeling and expecting reflective practice within each of the structural elements.^v For example:

- The “safe space” culture of monthly check-in calls permitted two-way examination of organizational practices, accomplishments, challenges, and implications for improvement.
- The CFTL expected the member organizations to use the Common Measures evaluation data as formative feedback to strengthen their models. CFTL leaders also used the evaluation formatively to adjust their leadership practice, push the whole network, or support individual organizations.

- The CFTL encouraged organization leaders to use annual written reports to reflect and share learnings in addition to substantiating accomplishments and identifying challenges.
- CFTL leaders modeled participatory, reflective learning in their shared learning events, and they demonstrated a variety of online platforms to support such learning. In these events, the TA organizations not only gained new ideas but also new skills and new opportunities for collaboration.

Design of a CFTL Learning Event

One especially successful learning event aimed to help organization leaders improve their ability to use data and evidence when portraying their programs. Called “**Supporting Your Story**,” the learning event was designed and facilitated such that it would model participatory learning on line.

Design elements	Content and activity
Pre-work before the event	Spend 30 minutes thinking about a success story you want to tell about your TPN work. Using the graphic organizer provided, identify themes or patterns in your Teacher Leader Survey data that might help substantiate your story.
Frame for the event	Three options for telling your story with data: <ul style="list-style-type: none"> - Your data has a story to tell - You have a story you want to tell and want to use evidence for that - Your audience has a story, and you want your evidence to speak to it, to reinforce or shift their story
Provocation	Before you looked at your data, what are a few success stories that you have been wanting to tell?
New content/strategy	What additional data (existing and pending from the Common Measures) will help you complete your story?
Processing and break-out	In pairs, discuss your stories, existing survey data, and possible additional data. Help one another as critical friends. 15’ per organization, with protocol.
Share-out and closing	After 10” of preparation time, each organization shared a strategy for telling their story with evidence. Some examples: <ul style="list-style-type: none"> - Examining what evidence can substantiate desired outcomes such as increased collegiality and collaboration - Using anecdotes to clarify that survey results might mean for improvement - Ways to display evidence, such as video, infographics <p>The CFTL leaders responded to each organization’s share-out with suggestions for resources, clarification of concepts, and encouragement.</p>

Examples of organization-level learning

Evidence from grantees’ reports, along with interviews with CFTL leaders, suggest that all organizations improved in their practices and some made significant adaptations to their program models. Highlights:

- The CFTL worked more strategically over time to foster communication across organizations in the networks—i.e., to add “spider-web” patterns to the “hub and spokes” network structure. Multiplying the communication conduits in this way enhanced the learning opportunity for each organization and the network as a whole. Some organizations formed lasting relationships with plans to collaborate on new projects.

- Organization leaders' reflections on challenges and key features of effective partnerships made them more cognizant of the power of districts as organizational actors. CFTL leaders shared those insights back to the whole network, enabling them to strengthen partnerships.
- Organizations gained new insights about how to develop, support, and tap into teacher leadership—for example, about teacher leaders' need to learn collaboratively with one another. Some re-designed their TL support programs so they would form communities of practice for teacher leadership.
- Organizations used the reflective opportunity of the TPN to refine their models. One even re-framed its organizational mission as offering Title I teachers a first step into leadership. According to the PI, finding their "sweet spot" helped them fulfill their commitment to equity within the profession.
- CFTL leaders became more deliberate in encouraging organizations to design the high-touch work such that teachers (as learners) could experience cycles of professional learning with inputs and tools, trials in the classroom, and collaborative reflection. Organizations in turn became more deliberate in helping teacher leaders design and facilitate these cycles. Teacher leaders in organizations where these designs predominated were more likely to report change in practice beyond the level of individual teachers.
- Both the CFTL and the external research team gained new skills and tools of evaluation when challenged with documenting the benefits and impact of the initiative in ways that honored the variation in organizational designs, content areas, and contexts, while assessing progress toward the common goal.

V. THE NEED FOR LASTING INFRASTRUCTURES FOR IMPROVEMENT IN EDUCATION

The latter cohorts of the TPN worked in coordinated yet context-sensitive fashion to develop more than 1,000 teacher leaders who facilitated professional learning for 10,000 of their colleagues. With guidance from the CFTL, 14 improvement organizations built greater capacity to develop and support teacher leaders. The CFTL gained skill and experience in the role of guiding networks of diverse organizations to work toward a common goal. By the sunset of its funding, the TPN had become a complex yet high functioning initiative that helped transform new standards from policy language to classroom practice in dozens of schools and districts in 13 states.

What are the implications of the TPN initiative as an investment in educational improvement?

It is tempting to assert that the example of the TPN can serve as a model for others—*i.e.*, that this elucidation of what made the project successful can inspire others to fund, replicate, or adapt the design elements, culture, and qualities of leadership of the TPN to accomplish similar goals. That is a reasonable assertion and would reflect potential for another positive outcome.

However, there is a larger and we think more important observation to be made, given the accomplishments of the project.

The distinctive contributions of improvement infrastructures

We conceptualize the TPN as an infrastructure for improvement in education (St. John and Stokes, 2008-1).^{vi} Infrastructures can be defined as coordinated, reliable systems—i.e., set of connected, well-functioning structures—that are dedicated to enabling important processes.¹⁴ Educational improvement infrastructures, then, are coordinated, reliable sets of structures dedicated to improving education. The TPN was dedicated to helping teachers shift their practices closer to new standards, to helping teacher leaders improve at sharing expertise with their colleagues, to helping technical assistance organizations improve at developing and supporting teacher leaders. Further, the design of the TPN as a learning organization meant that the CFTL, the member organizations, the teacher leaders, and the TPN networks as a whole were *improving in their improvement work*.

Improvement infrastructures do for the school system what the system does not have capacity to do for itself. This is because the school system is stretched to capacity just to fulfill its primary function of operating schools. Districts and schools have little or no internal capacity available for the function of innovation, R&D, and continuous improvement.

We know that the education system on its own is not capable of developing sufficient teacher leadership (Jacob & McGovern, 2015), and it has long been recognized that teacher leadership is a vital contributor to professional culture and instructional improvement in schools (Little, 1998). Thus it follows that infrastructures such as that of the TPN, which function to develop teacher leadership—and *to get better* at developing teacher leadership—play a vital role in strengthening teaching and learning.

The learning initiative as a generator of educational capital

As a learning initiative, the TPN not only produced immediate results, but it also produced returns on the investment in the form of assets that can be drawn upon for future educational improvement work, *i.e.*, it generated capital for educational improvement.^{vii} We have learned from other studies (St. John & Stokes, 2008-2; Stokes, *et al.*, 2017) that the following forms of educational improvement capital can be generated—and are needed—for ongoing improvement:

Human capital—accumulated professional knowledge and skills of educators at any level of the system and the broader ecology of the field

Knowledge capital—collective professional knowledge, including knowledge in sharable, adaptable forms such as materials, workshops, tools, and so on.

Social capital—relationships and connections among knowledgeable educators

Cultural capital—internal culture that values inquiry and improvement; also, competence in diverse cultures and contexts of education

Institutional capital—relationships that span organizational/institutional boundaries

The TPN clearly generated these kinds of assets—e.g., well-informed teacher leaders, new professional and institutional relationships, a wealth of new standards-aligned resources, an expanding knowledge base about what teachers need in order to shift their practices toward standards—across the networks and within each organizational partnership. These assets can be available to contribute to ongoing improvement work.

¹⁴ E.g., the communication, transportation, or energy infrastructures we rely upon.

The problem of institutionalization

Funders often develop grants on the assumption that the work they support will become “institutionalized,” *i.e.*, that districts and schools will absorb and become able *on their own* to sustain the work. However, we think that the operation of schools and the improvement of education are two distinct (though related) functions. If districts had sufficient internal capacity to take up innovations, sustain them, and continue to improve on them, they would likely do so on the whole. Similarly, if teachers had sufficient opportunity within their workplaces to improve their teaching over time in ways that reflect ongoing research and best practice, we believe they would do so on the whole. **The fact that lack of institutionalization remains the norm**, and development of internal capacity for improvement the exception—even after decades of well-designed improvement efforts—**reflects “an inconvenient truth” about the operating system’s inherent lack of capacity to improve itself and get better at improving itself.**

These realities give us cause for some concern about the long-term value of the improvement capital generated by the TPN—the knowledge, the leadership, the relationships, *and* the TPN’s increased capacity to get better at generating knowledge, leadership, and relationships. What will become of these assets in the absence of support for coordination?

Three questions for the design of improvement initiatives in education

The success of the TPN affirms the advantages of network structures, and it affirms the vital role that teacher leaders play in instructional improvement. Our study leaves us with three questions about the design of investments in improvement:

1. Does the investment produce a well-designed initiative that produces positive results?
2. Does the initiative build capital that has potential to contribute to ongoing improvement? Is it designed to get better in its role of improvement?

The investment in the TPN initiative satisfies these two questions.

3. Is the investment designed to sustain the ongoing production of educational capital that will be needed for continuous improvement at scale? Does the investment support a reliable improvement infrastructure that the system of teachers, schools, and districts can rely upon over time?

Here the investment in the TPN appears to be too short-term. Funding ended just as the CFTL and TA organizations of the final cohort were achieving a high level of skill at extremely complex work.

Several decades ago, researchers at Rand made the case for policy implementation as “steady work.” They argued that long-term, continuous “dialogue” among the levels of policy, research, and practice are needed if policies are to contribute to improvements in education (Elmore & McLaughlin, 1988). Initiatives such as the TPN facilitate these dialogues—these complex translations and transformations from policy to practice in real school contexts. In fact, building conduits that span the boundaries of policy, research, and practice should be a primary function of the improvement infrastructure. We hope that grant makers and policy makers alike can be reminded of the need for steady investment in the steady work of educational improvement.

ENDNOTES

ⁱ We cannot estimate unique individual contacts. Metrics used by organizations: File sharing: unique teachers accessing all curricula items; Mass email: opens, distributed, replies, click thru-rate multiplied by the number of total emailable educators in their organization; Printed Materials: distributed, in attendance, downloads; Social media: views, opens, distributed, likes, replies, re-tweets, followers, friends, connections, engagements, social engagements, interactions; Video: views, distributed, in attendance; Virtual presentation: in attendance, distributed, views, opens, downloads; Website posts: views.

ⁱⁱ See McLaughlin (1990), Lipsky (1971), and Yamaguchi, et al. (2017) for an introduction to ground-breaking research on “mutual adaptation” of policy between the policy making level and “street level”—not only in education but in many human services fields.

ⁱⁱⁱ Dan Lortie’s 1975 book, *Schoolteacher*, launched a line of ongoing research that, in my view, affirms how stable these occupational norms remain today, despite much effort—in the system and in the profession—to alter them.

^{iv} We have conceptualized the essential teaching-learning relationship for students as well as adults as an “I-Thou-It relationship triangle,” where I (teacher) form a relationship with Thou (learner) for the purpose of helping Thou form a relationship with It (focus of study). When I love and respect Thou, I am best positioned to help Thou love and respect It. Adapted from educator David Hawkins (2002), also <http://www.hawkinscenters.org/i-thou-and-it.html>.

^v The CFTL leadership practices reflect the legacy of Donald Schon’s conceptions of reflective practice (1983, 1987) and learning organizations (1978, 1996).

^{vi} The concept of “improvement infrastructure” was first developed by Silicon Valley pioneer Douglas Engelbart, who recognized that all organizations have two levels, a *core capability* level, where the core work gets done, and the *operational* level, which organizes and supports the core work. Applied to education, the core capability level is the classroom embedded in the school, where the core work of teaching and learning takes place. The system of statehouses, districts, and schools form the operational infrastructure that allows the classrooms to fulfill their core function—providing labor contracts, textbooks, building maintenance, and so on. Engelbart saw that operational infrastructures do not have sufficient capacity to carry out the primary function—to enable core work to get done—and also function to help organizations improve themselves, to innovate, and solve new problems. He proposed that organizations need a third level of infrastructure, the *improvement* infrastructure, which has the function of organizing the ongoing work of *improvement*. Improvement infrastructures enable organizations (and the people within them) to get better, and also to *get better at getting better* (Landau and Clegg, 2009). Engelbart’s concept of improvement infrastructure underlies such efforts as the development of “networked improvement communities” (or NICS) by the Carnegie Foundation for the Advancement of Teaching (Bryk, et al., 2011).

^{vii} We distinguish between expenditures and investments. An expenditure is a one-time cost for a service, such as a workshop. An investment, in contrast, is designed to be longer term such that it brings returns in the form of new capital assets that will continue to grow and thus be available for future work. We see networks as a structure that is highly capable of bringing returns on investment, when well designed, led, and supported.

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APPENDIX A

About the Grantee Organizations of the Teacher Practice Networks

TPN 1		
Organization	Service area	Focus of TPN grant
Arkansas Public Schools Resource Center (APSRC)	AR: 62 districts OK: 9 districts	Tech assistance and training, primarily in rural and charter schools
Battelle for Kids (BFK)	OH: 11 districts TN: 11 districts CO: 7 districts	Tech assistance and training for rural schools
Center for Applied Linguistics (CAL)	MA: Fitchburg Public Schools NY: City SD of Albany, Greater Amsterdam SD	Improve (shelter) instruction for English learners
DePaul University STEM Center (DePaul)	IL: Chicago Public Schools CA: 15 districts	Support mathematics improvement through Leading with Algebra program
EL Education (formerly Expeditionary Learning) (EL)	CO: Denver Public Schools NY: Brockport Central SD, Jamestown Public Schools	With a focus on English Language Arts, broaden and enliven students' learning
Facing History and Ourselves (FHO)	CA: Schools in Los Angeles and San Francisco Bay Area FL: Schools in Miami KY: Schools in Louisville MA: Schools in Boston OH: Schools in Cleveland TN: Schools in Memphis	Promote humane citizenry through study of Holocaust and other historical examples of genocide and racism.
New Visions for Public Schools (NVPS)	NY: Schools in New York City	School improvement in NYC, with emphasis on quality teaching in core academic subjects
TPN 2		
Organization	Service area	Focus of TPN grant
Constitutional Rights Foundation (CRF)	CA: Districts in LA and San Diego NC: Guilford and Iredell-Statesville Counties FL: Public schools within Brevard Orange, Duval, and Osceola Cos	To support teachers in facilitating civil conversations to instill youth with active citizenship.
National Board for Professional Teaching Standards (NBPTS)	CA: Los Angeles USD and San Diego County	To support teachers in differentiated instruction, part of the NBPTS certification portfolio.
National Writing Project (NWP)	NY: NYC Dep't of Ed. AL: Birmingham, Bessemer, Fairfield, and Hoover City Schools; Jefferson County Schools	To support teachers in designing high quality writing assignments.
ReadWorks (RW)	NY: NYC Dep't of Ed. FL: Columbia County schools	To provide teachers in under-resourced schools with access to teacher leadership development for the teaching of reading.
Teaching Matters (TM)	NY: NYC Dep't of Ed.	To support and certify teacher leaders for urban schools.
Teach Plus (TP)	MA: Boston PS TN: Shelby Co (Memphis) CA: LAUSD and two charter organizations	To develop teachers who can support cycles of professional learning.

APPENDIX B

The Common Measures Evaluation Suite

Inverness Research collected the results from all evaluation processes except the Teacher Leader Survey,¹⁵ and provided each organization with detailed reports of their own data along with comparisons to project-wide averages. Organizations were expected to draw from Common Measures data in their annual reports to the TPN network leaders. The Common Measures data served as the primary evidence base for IR reports to the CFTL about the progress and impacts of the TPN project.

1. The **Teacher Leader Annual Survey** was developed first and administered to all teacher leaders in Cohorts 3 and 4. It documented the professional backgrounds of teachers and included ratings and open-ended questions asking teachers about the preparation and supports they received from their home organizations, about their levels of confidence and other assets gained from the preparation and supports, about their work with teachers in partner districts and schools, including some elements of the context for that work, such as administrative support and time, and about what positive changes they had observed among the teachers with whom they worked. Responses were shared with individual organizations and shared with Inverness Research to be included in TPN reports to CFTL.

Three instruments were developed and piloted during Year 1 of Cohort 3, all co-created by the CFTL and Inverness Research, and all involving input from grantee organization leaders:

2. The **Light-Touch Log**, an Excel spreadsheet, was used by teacher leaders to document the modes of communication, or “channels,” they used to distribute CCSS-aligned information and resource to educators, e.g., conference presentations, social media, webinars, e-newsletters and blogs, printed materials. The TLs submitted their logs to their organization leaders, who compiled the logs, applied analytics to the logs to estimate numbers of educators reached, and submitted the data to IR.

4. To document their more intensive work with teachers, teacher leaders used a **High-Touch Activities Form**. This Excel sheet asked teacher leaders to provide a set of quantitative and qualitative data on each professional learning activity they provided:

- Date(s)
- Whether the activity was part of a series or one-time
- Whether the activity was delivered face-to-face, on-line, or a combination
- Primary purpose of the activity
- Type of activity
- Number of teachers participating
- Length (hours or parts of hours) of the activity

For the qualitative data on mode of delivery, primary purpose, and type of activity, the form provided drop-down menus with choices that reflected the input of organizations. For example, the “primary purpose” menu referred to the intent of the teacher leader in facilitating teachers’ professional learning. The choices were distilled from a CFTL-facilitated TPN convening where grantee organizations jointly discussed and planned their high-touch work. These primary purposes arose in that discussion and were

¹⁵ By Rockman, et al, in consultation with the CFTL. Rockman, et al. administered and reported on the survey throughout the TPN project.

included on the form: receiving new content; processing new content; applying to practice; reflecting on application; planning/strategizing future goals.

4. To capture participating teachers' perspectives on the value of the high-touch work for their professional learning, we developed an on-line **Participant Exit Survey**, dubbed the Flash Survey. Designed to be filled out in fewer than five minutes on any device, this 10-question survey asked about the amount of time the teacher participated in professional learning with the teacher leader, then asked for ratings on nine items specifying potential benefits to them. Rather than expect teacher leaders to gather this survey data from every teacher they worked with, CFTL network leaders developed target response numbers based upon the expected number of teachers to be served.

5. The **Change in Practice Exploratory Study** presented the greatest design challenge for the evaluation. First, the Gates foundation and CFTL formed an agreement that this part of the evaluation would meet two design criteria: Involve empirical evidence (such as observation or document review) rather than teachers' self reports; and employ a pre-post design to show improvement over time. Second, the grantee organizations worked in different content areas (mathematics, English language arts, history/social science, or several of these), focused their work on different grade levels, and employed different tactics to develop teacher leadership and design professional learning for teachers. There was no single instrument that could be used to measure changes in practice in ways that reflected the actual work of all networks. Finally, there were no extra funds that could be devoted to a pre-post observation study of sufficient scale and methodology to meet field standards of rigor. The study that was designed thus reflects the managerial practice of "satisficing," which involves making a decision that is "good enough" under circumstances where there is no optimal solution.¹⁶

As designed, the study involved a small number of teacher leaders (three or four per organization) in conducting pre- and post-classroom observations of two or three teachers in their professional learning cohorts. The CFTL TPN network leaders consulted widely to gather consensus on observation instruments that were accepted in the field as well aligned with CCSS and that were also feasible for teacher leaders to use. The CFTL selected the Instructional Practice Guides (IPGs) developed by Achieve the Core, offering the organizations the choice of using the version that best fit the subject matter and grade level of the teachers being observed. IPG forms were used by all organizations except for the National Writing Project, which made the case that the Learning Design Collaborative's Jurying Rubric was the best fit for their goal, which was to help writing teachers strengthen the design of classroom writing assignments.

In the first pilot year, TPN network leaders imposed as few constraints as possible on the organizations' use of the observation tools beyond clarifying that they should be used twice, before and after substantive learning experiences. The CFTL emphasized that the observations should benefit the teacher leaders doing the observing, the teachers being observed, and the organizations. In fact, the TPN leaders envisioned the IPGs functioning as peer observation tools that could facilitate coaching and professional dialogue. To better understand the teacher leaders' experiences with the observations and uses of the forms, CFTL staff conducted individual interviews at each organization. These, together with what IR learned from supporting data collection and submission, led to the creation of more supports in the use

¹⁶ Herbert Simon, a leading researcher on the behavior of managers in the 1940s and 50s, coined the term, which blends *satisfy* and *suffice*. He was quoted as saying, "decision makers can satisfice either by finding optimum solutions for a simplified world, or by finding satisfactory solutions for a more realistic world." A large number of business training and consulting companies still use Simon's work on decision making.

of the tools the second year, as well as to an expanded sample size. Still, organizations and teacher leaders retained discretion over how to train teacher leaders in the use of the tools and in adapting the tools for uses other than the evaluation.

While a more rigorous (and much more expensive) design would have been closer to optimal for research purposes, it would have lacked adaptability, relevance, and professional learning value for the teacher leaders and organizations. The “satisficing” design—which balanced common elements with customized elements—accommodated the more realistic (i.e., complex and competing) constellation of needs, while generating some evidence of teachers’ improvements in practice.