

THE ROLE OF EDUCATIONAL IMPROVEMENT CAPITAL IN THE SUCCESS OF THE NATIONAL WRITING PROJECT'S COLLEGE, CAREER, AND COMMUNITY WRITERS PROGRAM

LAURA STOKES

BARBARA HEENAN

NINA HOUGHTON

KATHERINE RAMAGE

MARK ST. JOHN



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ABSTRACT

In a two-year time span, 2013-14 through 2015-16, the National Writing Project's College, Career, and Community Writers Program (C3WP) achieved significant results in an independent, intent-to-treat, randomized controlled study. Middle and high school teachers in high-poverty rural districts in ten states changed their practices in response to the program, and their students outperformed peers on a rigorous measure of source-based argument writing. Since then, the NWP has made use of subsequent federal grants to scale up C3WP activity through teacher leadership institutes and programs in high needs urban and rural schools, and has extended the program to upper elementary grades. C3WP programming has scaled to 96 local NWP sites in 44 states within five years from its launch. What made this combination of high quality, effectiveness, and scalability possible? Drawing from research on the organization of educational improvement, we argue that the National Writing Project is an improvement infrastructure that continuously generates educational improvement capital, enabling it to solve important problems of practice at large scale.

TABLE OF CONTENTS

INTRODUCTION	1
IMPROVEMENT INFRASTRUCTURE	1
NETWORKED IMPROVEMENT COMMUNITY	3
EDUCATIONAL IMPROVEMENT CAPITAL	5
AN ILLUSTRATION: DRAWING ON ACCUMULATED IMPROVEMENT CAPITAL TO SHIFT THE C3WP THEORY OF ACTION	9
INVESTING IN EDUCATIONAL IMPROVEMENT	11
REFERENCES	12

INTRODUCTION

In 2013-14, the National Writing Project reached out to high poverty rural school districts in ten states to launch the College, Career, and Community Writers Program (C3WP).¹ The program was designed to improve secondary teachers' abilities to teach students argument writing. The writing of arguments requires critical reading, reasoning, and writing skills; thus it is a form of literacy that is foundational to college- and career-readiness, as well as to informed participation in democratic society.² Within a two-year program, 2013-14 through 2015-16, the C3WP demonstrated significantly positive results in an independent, randomized, intent-to-treat trial on measures of teacher practice and student writing of source-based arguments (Gallagher, et al., 2017). Within three more years, 2015-16 through 2017-18, the NWP made use of subsequent federal grants to scale up C3WP activity to 96 sites in 44 states. New C3WP activities include teacher leadership development institutes, in-service programs in urban and rural high needs schools, and extension of the program to upper elementary grades.

What made this combination of effectiveness and quick scalability possible?

We argue the answer is that the National Writing Project functions as an **improvement infrastructure** that has continually accumulated **educational improvement capital**, and that the NWP drew from that capital to form a national **networked improvement community** around the particular problem of strengthening the teaching of college- and career-ready writing, and did so in ways that worked in isolated rural districts in ten state contexts. Further, we argue that the initial C3WP program built **additional educational capital** enabling the NWP to scale up the improvement community. That scaling continues to strengthen the NWP infrastructure and increase its overall capacity to help localities generate improvements in their education systems. This paper parses these core concepts, with an emphasis on forms and uses of improvement capital.

IMPROVEMENT INFRASTRUCTURE

The National Writing Project functions not as a typical project but rather as an "improvement infrastructure" for education (St. John and Stokes, 2008-1; Bryk, et al., 2011). 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. Engelbart proposed that organizations need a third level of infrastructure, the *improvement*

¹ Originally called the College-Ready Writers Program (CRWP), it was supported by a federal Investing in Innovation (i3) validation grant.

² Our companion paper, "Serving Colleagues and Connecting Professionals," describes the design of the C3WP as well as the rural conditions. <http://inverness-research.org/2017/12/27/portfolio-c3wp/>

The Role of Educational Improvement Capital

infrastructure,³ which would enable them to get better and also *get better at getting better* (Landau and Clegg, 2009). 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, staff training, and so on. The third level, an improvement infrastructure, would have the function of organizing the ongoing work of *improving* education.

In U.S. education, the improvement infrastructure is elusive. Many states and districts barely have enough capacity to function at the operational level. (We observed this phenomenon in many of the districts participating in the initial C3WP program, where classroom materials were scant, turnover was high as teachers left for higher paying districts, and training—even in new assessment policies—virtually nonexistent⁴.) Typically, two-to-five year grants offer districts or schools a menu of short-term and piecemeal opportunities. An infrastructure, in contrast, is by definition a connected system dedicated to ensuring broad, dependable access to needed services and resources. These features are evident in the physical infrastructures we rely upon—universal access to electrical power and now in the 21st century, to the internet; linked systems of roads, bridges, railways, and ports to support commerce; coordinated aviation systems to provide efficient and safe travel. Educational improvement infrastructures are reliable, connected structures dedicated not to delivering education but rather to *improving* education and to *get better at improving* education. We believe that the improvement of education is a vital function, and thus that investment in educational improvement infrastructures is critical.

The National Writing Project, while experiencing ups and downs in funding, has supported a roughly stable nationwide network of 180-200 local university-school partnerships (local “sites”) for more than 40 years. From the beginning, the mission of supporting students as powerful writers, and supporting teachers as learning and leading professionals, has guided the NWP (Gray, 2000). Each NWP site forms a long-term community of local teachers who continue to learn together, to develop as leaders, and to serve their colleagues in local schools. Local NWP sites are “nodes” in the networked organization, with national offices serving as the “hub” that connects local sites (Everett, 2011). Importantly, networked organizations are not closed systems (e.g., not franchises), but rather they invite local adaptation and innovation within the mission that binds the network together. Being part of this NWP network infrastructure means that local NWP site directors—while they are responsible for supporting a local network of teacher leaders, providing professional development locally, and adapting their work to local

³ Engelbart defines improvement infrastructure as the source of “collective intelligence”:
<https://engelbartbookdialogues.wordpress.com/help-us-raise-collective-intelligence/colleagues-re%E2%82ect-on-the-engelbart-diaspora-impact-on-the-future/>

⁴ C3WP districts were in Alabama, Arizona, Arkansas, Louisiana, Mississippi, Missouri, New York, Oklahoma, South Carolina, and Tennessee. See our companion paper, “Serving Colleagues and Connecting Professionals,” for more detail about the contexts of participating teachers’ work.
<http://inverness-research.org/2017/12/27/portfolio-c3wp/>

The Role of Educational Improvement Capital

conditions—are not working in isolation, but rather in connection with one another and the hub.

The core work of the NWP infrastructure is neither to teach writing nor to organize the teaching of writing; rather, it is to generate and support teacher leadership as a vital contributor to improvement of teaching and the strengthening of the teaching profession. Thus the NWP is an infrastructure dedicated to improvement. This improvement infrastructure served as the structural, intellectual, and practical foundation for the College, Career, and Community Writers Program.

This national support structure is the reason that I enjoy working for the Writing Project. It is very hard to have a sense of what is going on anywhere else, and it is very easy to become isolated or feel like the issues that you are addressing are just your region, so I think that structure is probably the most important part of the C3WP really—to have connection to those resources, and to have a conversation happening that helps those of us in these isolated sites see that we are all working on some common issues, and giving us access to people who are thinking about things in similar ways that we are, and who may even be able to connect us to other resources. Just like in the schools, it is probably the most important part of even keeping folks in these positions, even with writing projects, just that sense of connection to a larger network. I think that is huge.

—C3WP coordinator from a small rural NWP site

NETWORKED IMPROVEMENT COMMUNITY

Bryk, et al., (2011) built upon Engelbart’s concept of the “networked improvement community”⁵ to describe a particular social structure posited as a better alternative to education improvement than the traditional research-transferred-to-practice model.⁶ Combining Engelbart’s ideas with research on networks and communities of practice, Bryk, et al., characterize networked improvement communities (NICs) as communities of practice where members not only share interest in a broad area, but also *commit to collaborating on a specific problem of practice and aiming at a measurable improvement goal*. NICs share an important feature of networks, in that they spark innovation and accommodate local variation more readily than rigid implementation structures.

We see the C3WP as a networked improvement community within the larger National Writing Project infrastructure. The broad goal of improving students’ writing via the support of teacher leadership binds the larger NWP infrastructure. Within that, the College, Career, and

⁵ See <http://www.dougenelbart.org/about/nics.html#0>, as well as other resources of the on-line Doug Engelbart Institute.

⁶ For additional resources on NICs, see LeMahieu, P. (2015) and Russell, et al. (2017).

The Role of Educational Improvement Capital

Community Writers Program formed as a networked improvement community that focused intensively on a particular problem area (writing for college and career readiness, civic participation), drew from research and practice to define a specific solution (the teaching of argument writing using multiple non-fiction sources), and implemented it with an aim at a measurable goal (teachers' use of teaching practices for source-based argument writing and greater growth in student writing as measured on the AWC-SBA⁷).

A good definition of critical thinking is having good reasons to believe what you believe, and an argument is a reason or a set of reasons for what you believe. Teaching argument to directly engage a student in the act of critical thinking—that right there is a really elusive goal in literacy classrooms...at the beginning of the study, we didn't know what this would look like...things that we thought would work didn't work...as a network really, we spun our wheels, and we rechecked. By all coming together in the network we were able to try to get to the heart of what this thing is that we are talking about and test it out.

—C3WP thinking partner and teacher leader

The C3WP is not the first of the NWP's embedded networked improvement communities, though it was the NIC focused most laser-like on the measurable outcome of student writing achievement. In fact, long before Bryk and others popularized the NIC concept as a model for education improvement, the NWP formed dedicated problem-solving initiatives that focused on a particular problem area and convened subgroups of interested site directors and teacher leaders to inquire into it. These initiatives did not aim at a single target (e.g., a test score), but rather, they were designed to build a knowledge base and leadership capacity that could expand local sites' capacity to serve teachers in connection to that problem area.⁸ Some examples follow.

In 1992, the NWP formed the Rural Sites Network to link teachers and site directors in rural areas to address common challenges of isolation and poverty, to strengthen professional development, and to create and celebrate place-based and community-centered approaches to writing. This decades-long program contributed much to the stance of respect toward rural communities and teachers that characterized the C3WP program.⁹

⁷ Argument writing was measured on the National Writing Project's Analytic Writing Continuum, a valid and reliable measure of student writing (Bang, 2013), modified by a panel of experts for Source Based Argument. Also see Gallagher, et al. 2017.

⁸ See https://www.nwp.org/cs/public/print/doc/past_programs.csp. Inverness Research served as formative evaluators of several programs. Papers on some can be found at <http://inverness-research.org/2017/12/27/portfolio-nwp/>

⁹ See our companion paper, "Serving Colleagues and Connecting Professionals" for more insight into the stance and tone of the C3WP professional development. <http://inverness-research.org/2017/12/27/portfolio-c3wp/>

The Role of Educational Improvement Capital

In 1995, the NWP funded Project Outreach to enhance local sites' capacity to understand equity issues in their areas, to diversify site and teacher leadership, and to expand access to teachers in high poverty schools. Eighteen sites worked in three cohorts over more than ten years. The English Language Learner Network formed in 2000 as an outgrowth of Project Outreach. It aimed to expand local sites' capacity to provide professional development for teachers of EL learners and to advocate for their needs.

The National Reading Initiative formed in 2002 to expand the NWP's knowledge base about the teaching of reading as a companion to writing development, in particular, reading comprehension across the curriculum and reading-writing connections in academic literacy.

Other special focus initiatives included the Technology Initiative, the New Teacher Initiative, the Teacher Inquiry Communities project, and the Urban Sites Network. All of these had similar aims:

- Building shared knowledge in the problem domain through inquiry into relevant research and practice
- Developing high-quality resources and programs (forms of systematic, sharable knowledge) related to the problem area that could enrich local NWP sites' programs for teachers
- Increasing local teachers' access to professional development and instructional resources in the problem area
- Connecting local NWP sites and teachers across the nation to one another, and with other institutional partners, to sustain learning.

These networked improvement communities functioned as R&D projects dedicated to building multiple forms of educational capital that NWP leaders could draw upon to strengthen their programs for teachers. In other words, these NICs within the NWP served the purpose of *improving the improvement capacity* of the NWP infrastructure.

EDUCATIONAL IMPROVEMENT CAPITAL

We use the concept of educational improvement capital to characterize the returns on an investment in an educational improvement infrastructure (St. John and Stokes, 2008-2). To clarify, we distinguish between *expenditures*, which are one-time outlays to purchase a service, and *investments*, which are outlays that generate assets that can be drawn upon as capital for use in the future. It is the availability of these capital assets—along with the ability to re-invest that capital in such a way as to generate new capital for improvement—that, we believe, constitute the capacities of an improvement infrastructure.

Based on our studies of hundreds of education initiatives over 30 years, we suggest that the following forms of educational improvement capital can be generated—and are *needed*—for ongoing improvement:

The Role of Educational Improvement Capital

Human capital—accumulated professional knowledge and skills of educators

Knowledge capital—collective professional knowledge base of a group, particularly knowledge in sharable forms or contexts

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

For four decades, the National Writing Project has garnered a variety of federal, state, local, and philanthropic investments, enabling it to build an infrastructure that provides professional development programs annually at a very large scale to teachers, schools, and districts in all 50 states and U.S. territories.¹⁰ NWP programs are designed not only to improve the teaching of writing *per se*, but also to grow teacher leadership, generate ongoing teacher learning, and support the formation of collaborative professional communities.¹¹ Over time, this work has generated assets in the form of *capital for educational improvement* available to support future improvement work.

In 2013-15, the College, Career, and Community Writers Program tapped several forms of this available improvement capital to gear up, run, adapt in response to context realities, create new resources to support implementation, and achieve significant results in a rigorous trial. In turn, the C3WP generated additional improvement capital that local sites and the NWP network have drawn upon since 2015 to sustain and scale up local and national work. Here we highlight some forms of NWP improvement capital that the C3WP program drew from and that, in turn, the C3WP generated for future work:

Human capital

C3WP drew from:

Over time, NWP sites have built local communities of teacher leaders who are active in professional development and in other ways in their schools, other schools, and the profession more broadly. Thus local C3WP sites were able to form teams of experienced teacher leaders to launch the program. Further, the national leadership team and thinking partners comprised individuals that had accumulated knowledge over many years about teaching writing, designing and leading professional development, developing teachers as leaders, and embracing teachers in the full range of their diverse background and contexts.

¹⁰ For data on reach and scale of service, see NWP Annual Reports, (https://www.nwp.org/cs/public/print/doc/about/annual_reports.csp), as well as St. John and Stokes, 2008-1.

¹¹ See our companion paper, “Reflecting on the Critical Role of Generative Structures.” <http://inverness-research.org/2017/12/27/portfolio-c3wp/>

The Role of Educational Improvement Capital

C3WP generated:

By increasing the leadership capacity of their experienced teacher leaders and supporting new emergent leaders in the districts,¹² the C3WP sites expanded their human capital for future work. Because the NWP is a networked organization, the accumulated human capital has been available to be tapped for the ongoing work of scaling up.

Knowledge capital

C3WP drew from:

The NWP is internally structured to generate practical knowledge from collective inquiry into research and practice, and to distribute knowledge throughout the network (Stokes, 2010). The C3WP was able to coalesce knowledge about academic writing that had accumulated in the NWP over several decades of collaborative work among K-12 and college/university writing teachers. The NWP also drew from knowledge about professional development design accumulated from decades of shared practice and research. This practical knowledge gave rise to the C3WP instructional resources and tools that supported implementation in the initial 2-year program. These resources also form the asset of sharable knowledge.

C3WP generated:

The initial 2-year program produced a sizable cadre of NWP national and local leaders who had formed a shared knowledge base about argument writing, the teaching of argument writing, and the professional development strategies that supported teacher learning. Further, the instructional resources, formative assessment tool, and professional development designs became resources that later i3 and SEED-funded sites used for leadership development and in-service programs in high-needs schools. This extensive collection of practical knowledge in usable form stands as a durable product of the C3WP investment.¹³

Social capital

C3WP drew from:

All NWP sites comprise local teacher communities of active professionals, and the national network connects these to one another. Connections to colleagues empower teachers as professionals and provide access to knowledge as well as other supports such as motivation and community standards. Local site directors were able to draw from their local communities to form teams of teacher leaders for the C3WP project. Similarly, in order to form the group of thinking partners for the C3WP sites, the national leadership team was able to call upon high school and college writing instructors from around the nation who were known to be experienced both in the teaching of writing and in supporting improvement in high poverty rural schools.

¹² See our companion paper, "Teacher Leadership as the Scaling of Teacher Learning." <http://inverness-research.org/2017/12/27/portfolio-c3wp/>

¹³ See <https://sites.google.com/site/nwpcollegereadywritersprogram/home>

The Role of Educational Improvement Capital

C3WP generated:

Local teachers formed new connections with colleagues in the region through the collaborative professional development of the C3WP. Those teachers are no longer isolated; a good number of them have become members of the local sites' professional communities. Some local teacher leaders and district participants attended national meetings of the C3WP and thus experienced a multi-state professional community of practice. These expanded connections provide teachers with greater access to knowledge and human capital assets. Further, social capital that is built in a collective effort such as the C3WP contributes to knowledge capital through formation of shared language and practices. All of these connections have potential to contribute to future improvement work.

Cultural capital

C3WP drew from:

C3WP leaders drew upon the NWP's *internal* professional culture—its own customs and social behaviors (Lieberman and Wood, 2003)—to embrace rural teachers as colleagues and offer them new pathways to professional growth. They also drew upon their internal cultural practices collaborate on development of new resources. Further, the national leadership team drew from the NWP's Project Outreach program and other equity and diversity-related initiatives to employ lessons learned about how to form relationships with and support teachers in the full range of cultural settings.

C3WP generated:

Local C3WP site communities reflected the character of the rural areas in which they were situated; program-wide convenings created explicit opportunities to celebrate diverse contexts and find common ground. Lessons learned from the first two years added to the NWP's capacity to scale the program into a greater variety of contexts.

Institutional capital

C3WP drew from:

Like all NWP sites, C3WP sites comprise institutional partnerships among universities, districts, and schools, and often community organizations as well. These organizational connections strengthen local sites through shared mission, collaboration, cost-sharing, and mutually enriching professional learning. All of these relationships and history were available for the C3WP work.

C3WP generated:

The design of the C3WP required site directors to engage district leaders in what for some were new kinds of partnerships—more focused, more intensive. C3WP partnerships involved a level of co-planning that sometimes generated tension around organizational structures (e.g., time for teacher learning), practices (e.g., professional development designs), and forms of authority (e.g., locus of decision-making about curriculum). Site leaders had to forge new institutional connections. A number of sites emerged from the C3WP program with long lasting district

The Role of Educational Improvement Capital

partnerships that were sustained after the grant, enabling continued professional development for teachers. Some C3WP sites also formed new collaborations with other NWP sites in their state, or formed new relationships with their state departments of education through the C3WP program. This institutional capital will generate new opportunities for their work.

AN ILLUSTRATION: DRAWING ON ACCUMULATED IMPROVEMENT CAPITAL TO SHIFT THE C3WP THEORY OF ACTION

In a paper presented at the 2017 AERA meeting (Friedrich, 2017), the NWP Director of Research and Evaluation explained how the national leadership team was compelled to change the C3WP theory of action partway through the two-year program in response to realities of the district contexts and local site capacities. The initial theory of action assumed that local NWP site leaders in the C3WP program could deliver professional development on the teaching of argument writing and that local district teachers could translate what they learned into new classroom practices that would generate students' argument writing. In the first months of the program, NWP leaders learned that while some site directors had expertise teaching argument writing, "even local Writing Project teacher leaders had spent little time teaching academic argument" and thus that "the teacher leaders responsible for the day-to-day work of facilitating professional development had limited expertise with this type of writing." In addition to the unevenness of local sites' knowledge bases, Friedrich points out that "the project as a whole had not developed a shared approach to teaching argument" (p.3).

These discoveries prompted a shift in the theory of action that launched an intensive effort to develop and put into practice—across all 12 local C3WP sites and in 22 districts—tools and resources that would support teachers in making changes in their practice. Within a matter of months, the C3WP created a set of instructional resources specific to source-based argument writing¹⁴ and a tool for formative assessment of students' work.¹⁵ In their design and usage, these new resources manifested NWP core values (Heenan & Houghton, 2006; Heenan, 2009) and social practices (Lieberman & Wood, 2003). For example, the resources and tools were designed by classroom teachers and tested for use by teachers, and they were designed to prompt inquiry into teaching and learning within a community of practice. Thus the resources served both to educate teachers and to acculturate them into the NWP. NWP leaders, as well as external researchers, share the view that these new resources, along with the professional development designs used to engage teachers with them, were vital to the success of the C3WP.

How did the NWP make this major shift in a matter of months—building new instructional resources and tools sufficiently quickly to transform C3WP professional development and yield

¹⁴ Our companion paper, "Reflecting on the Critical Role of Generative Structures," analyzes the structure and efficacy of these. <http://inverness-research.org/2017/12/27/portfolio-c3wp/>

¹⁵ Friedrich's 2017 paper analyzes the development of this formative assessment tool as a case to illustrate the shift in C3WP theory of action.

The Role of Educational Improvement Capital

positive results in a rigorous trial? We answer this question through the lens of *educational improvement capital within a networked improvement community*.

While the twelve local C3WP site communities had insufficient knowledge to effect the kinds of changes in their districts that the NWP expected, a number of *individuals* in some sites did have strong knowledge of argument writing. The national leadership team also included experts in the teaching of academic argument writing. Both locally and on the national team, there were those who had been continually teaching argument writing at the college level where—unlike K-12—the emphasis on the teaching and learning of academic argument writing had never waned in response to shifting policies.¹⁶ Here we see the advantage of the NWP being structured as K-12/college partnerships, where teachers at every level have been working side by side for many years. The build-up of **institutional and social capital**—the egalitarian professional bonds that supported teachers collaborating across K-12/college boundaries—served as a foundation for joint development work. In addition, the NWP’s many past experiences of bringing educators together around a shared problem provided it with an internal **cultural capital** to pull together and address this new problem.

The C3WP could draw on these assets to quickly marshal the available **human capital** in a targeted joint effort to create resources. Much of the relevant human capital comprised professional knowledge about argument writing and expertise in teaching argument writing. Experts in argument writing, both on the leadership team and distributed around the network, tapped their classroom practice as well as professional literature to help address the problem. For example, one national leader whose teaching of argument helped lead the way for the NWP introduced the team to Joseph Harris’s book, *Rewriting: How to Do Things with Texts* (2006).¹⁷ This approach to argument resonated with the C3WP leadership team, local site directors, and teacher leaders. Many of the new instructional resources focused on designs for teaching these “moves,” and the shared formative assessment tool helped teachers analyze their students’ learning of them. Ultimately, “the Harris moves” and “teaching the Harris moves” became much-heard phrases across the C3WP, reflecting evolution of shared knowledge.¹⁸ Moreover, expertise extended beyond argument writing to include knowledge about the design of professional learning for teachers.

When human capital is harnessed effectively in an improvement community such as that of the C3WP, it generates **knowledge capital**, i.e., shared and explicit knowledge. In the C3WP, new

¹⁶ In fact, we inferred that the limited knowledge base of otherwise highly skilled local high school teacher leaders was a sign that argument writing had become devalued in K-12 education.

¹⁷ Initially, NWP leaders had offered Toulmin’s (1969) popular model of argument as a foundational idea. In Year 1 classroom observations and professional development meetings, we saw that Toulmin’s model—particularly the “warrant” element—created more confusion than clarity. Harris’s ideas gained salience quickly.

¹⁸ Many other professional resources that were used across the C3WP sites—suggested by local leaders as well as the national team—also helped build shared knowledge that helped with teaching critical reading of non-fiction and source-based, well-reasoned argument writing.

The Role of Educational Improvement Capital

knowledge capital took form in the ever-growing resource bank for the C3WP, as well in the NWP's strategies for scaling C3WP programming to many more sites.

That model of development that moves back and forth from the national to the site and to the classroom and to the site and to the national, and it goes back and forth between me and the program and back to me, and the same thing happens up and down through that national model. What is happening in classrooms informs what the national team makes, and then the national team can create resources that helps there. It is kind of that layered effect... It is the network. The network can be used to get this information out and get these resources out and get the learning from the study and get it all out to local sites across the country, and do it in a very efficient way.

—C3WP thinking partner and teacher leader

The improvement capital that was generated in the two-year C3WP validation trial built local sites' capacity to implement the program in the 22 late-start districts in 2015-16, the third year of the i3 validation grant. Further, this capital fueled the NWP's efforts to scale up the C3WP work with subsequent SEED and i3 grants. As of early 2018—just five years after the launch—C3WP work is occurring at 96 NWP sites in 44 states. In the scaling work, we see not only spread (e.g., more sites, more districts, more schools, more teacher leaders), but also ongoing innovation (e.g., expanding into new grade levels, adapting to a wider variety of districts and states).

This extended example shows a networked improvement community at work within the NWP infrastructure. The NIC drew upon many forms of improvement capital—made available through long-term investment in the NWP infrastructure—to address a difficult, important problem of practice. The network structure permitted adaptation and innovation (e.g., the shift in approach and resources) as well as the collective effort required for the building of knowledge capital. All of this work will in turn generate new capital for future improvement work.

INVESTING IN EDUCATIONAL IMPROVEMENT

In a 2008 white paper (St. John & Stokes), we introduced the idea of educational improvement infrastructure using the NWP as an example. We concluded with these thoughts about the role of policy in supporting successful efforts at educational improvement.

Currently, the U.S. educational policy system appears to be unwilling or unable to devote funds to the creation of educational improvement capital. The result is that the educational operating system in the U.S. is not capable of supporting the work needed to improve itself. Worse, without the existence of improvement infrastructures, the educational operating system becomes “un-investable,” having very little capacity to use well the funds that are invested. This leads to a vicious downward spiral. The

The Role of Educational Improvement Capital

absence of capacity and the absence of investment lead to a chronically depleted and under-nourished system... What is needed now is a sustained program of steady investment in the nation's educational improvement infrastructure... We hope that the NWP can be seen and understood as illustrating a fundamentally different way of investing in the future of our nation and its children. (pp. 42-43)

In late 2017, we are less optimistic about the potential for policy makers to invest in educational improvement in a way that builds educational capital and supports networked improvement efforts. In fact, we wonder if the “vicious downward spiral” brought about by the scarcity of support for functional improvement infrastructures has caused some policy makers to lose faith in public investment in school improvement. Nonetheless, there are thousands of committed educators in the National Writing Project, as well as hundreds of other professional networks and associations—many of which promote leadership of teachers—that hold the knowledge and relationships that can be drawn upon as capital for important work. We hope the example of the C3WP and NWP helps make the case for their work, and helps them find ways to connect, such that they can draw from and continue building improvement capital to support students as thinkers and writers in democratic society.

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