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Teacher collaboration: 30 years of research on its nature, forms, limitations and effects

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ABSTRACT

This article reprises and reflects on 30 years of the author's work on teacher collaboration. The distinctive nature of this work has not been in making a case for teacher collaboration in terms of its benefits for students, teachers, or educational change. These arguments are widely available elsewhere. Rather it has examined ways of collaborating that are available to teachers, how formal or informal collaboration should be, how collaborative efforts can be misused or misdirected, and what factors must be considered when deliberately designing teacher collaboration so it will have the most beneficial effects. The article discusses the explanatory and strategic power of three concepts in particular—contrived collegiality, professional capital, and collaborative professionalism. Conclusions are drawn about next steps for educational research in terms of establishing clear typologies of teacher collaboration in relation to their impact and appropriateness in different circumstances.

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Introduction

Nothing matters more for young people in schools than the quality of their teachers (Schleicher, 2018a). As OECD and other commentaries point out, a strong teaching profession is a defining characteristic of high performing education systems (Organization for Economic Cooperation and Development, 2011; Tucker, 2019). Sufficient pay, high status, public regard, and rigorous preparation are key elements of what makes a strong teaching profession. But what also matters is the quantity and quality of professional collaboration within the job itself. Paradoxically, compared to other professions, teachers lack both genuine autonomy and also collaborative agreement on professional norms, standards and judgments (Fullan & Hargreaves, 2016). Andreas Schleicher (2018b, p. 96) argues that 'rarely do teachers own their professional standards to the extent other professionals do, and rarely do they work with the level of autonomy and in the collaborative work culture that people in other knowledge-based professions take for granted'.

Research since the 1980s has demonstrated that teachers who work in collaborative cultures tend to secure higher results in reading and mathematics, compared to colleagues who work in cultures of individualism, and that the social capital of teacher collaboration adds value to individual human capital in terms of impact on student

achievement (Bryk & Schneider, 2002; Day, Sammons, Stobart, Kington, & Gu, 2007; Leana, 2011; Rosenholtz, 1989). As the Organization for Economic Cooperation and Development (2016) concludes from its TALIS studies, 'a collaborative culture within the school shows one of the strongest associations with teachers' self-efficacy and job satisfaction'. What is less clear is what collaboration looks like, how it can vary, what are the relative benefits of different kinds of collaboration, and when collaboration can be harmful as well as helpful.

In the last 30 years, a lot of my work has tried to explain why teachers should collaborate, what ways of collaborating are available to them, how formal or informal collaboration should be, how collaborative efforts can be misused or misdirected, and whether any ways of collaborating have more impact on students' and teachers' learning than others. This article summarizes the results of these studies, including my most recent research on the nature and development of collaborative professionalism.

Friendship and output

My interest in collaboration began serendipitously with an undergraduate dissertation in sociology. In the summer holidays, I was part of a team of four university students tasked with compiling a map of the underground sewer system of Accrington—a mill town in Lancashire, England. We worked together, in rotating teams. One pair would record the heights above sea level of manhole covers (the entry points into the sewers), as they were then called. The other pair charted the directions of flow of the sewers underground. The teams were given almost complete autonomy and there was no intruding supervision. I collected quantitative data from the teams on numbers of manholes surveyed per day per team, using a cover story that I was doing a statistics assignment for my degree. I also undertook covert ethnographic observations (probably ethically unacceptable today) on the actions and patterns of interaction among these teams who were all in different stages of friendship-friends, potential friends, and antagonisms (pairs who actively disliked each other). Who would be most productive, I asked—friends, antagonisms, or the ones in between?

There was already a literature on the connection between social relations on the one hand, and productivity or output in work teams, on the other. One of these was a classic text on what became known as the Human Relations School of organizational management. In Management and the Worker, Roethlisberger and Dickson (1939) investigated the effects on productivity of attempts to alter the physical environments of workers at the Western Electric Company's Hawthorne Works in Chicago. What is now well known is that the physical environment assumed less importance as a determinant of productivity than the social relations among the workers. Even when experimenters made the room colder and turned down the lights so it was almost impossible to see, productivity still went up because the workers appreciated someone actually taking an interest in them. Indeed, this phenomenon of improved results being an effect of the human act of research interest itself became known as the *Hawthorne* or *Halo* effect.

As a result of the experiment, six workers experienced 'decreased supervision and increased freedom and hence more opportunity for social interaction than they experienced before' (Hargreaves, 1972, p. 40). The implications for productivity of these improved social relations were not straightforward, though. Initially, 'talking replaced production as a result of which

two particularly talkative friends (who had been friends before they became workmates) were expelled' (p40). A leader then emerged and guided the group to establish and comply with norms for increased output, in which they were collectively invested.

Reviewing this landmark study, I concluded that 'there is a definite relationship between friendship and output', but that 'this relationship is complex and is modified by intervening variables such as personality, the degree of stability of the friendship, affiliative needs, previous interpersonal relations, possibility for interaction, and so on' (p48).

My own study discovered that the pair with the highest productivity was, curiously, the antagonism. It had the highest mean because work partners kept to the task whenever they could to avoid social interaction. But it also had the highest standard deviation in one of the tasks, as close proximity required by the task sometimes provoked interruptions through arguments and conflicts.

The pair that was the strongest friends actually had the lowest mean combined with the highest standard deviation on the other task in terms of productivity. Its members would work when they wanted to, sometimes take very long lunch breaks at one of their homes, then try to compensate later by accelerating their rate of production. The insight here, as in the early human relations studies, is that greater friendship does not always lead to better collegiality.

In education, Jorges de Lima (2001) concluded we should be 'forgetting about friendship' as a desirable goal for strong collegial relations. Indeed, 25 years later, when I undertook a study of 50 teachers and the emotional aspects of their work, including their emotional relations with colleagues, I concluded that while 'teachers seek and enjoy the rewards of affiliation with colleagues', when these turn into close friendships, they 'tend to be built on and to reinforce like-mindedness instead of also supporting the professional disagreement and mutual critique that can move teaching forward' (Hargreaves, 2001).

Divided cultures of teaching

Some years later, when I pursued graduate study, my initial research interest was in investigating the differences between progressive and traditional teaching styles. However teachers taught, I became curious about what led them to teach that way. The theory of symbolic interactionism on which I drew interpreted human actions and interactions, even baffling ones, as reasonable and meaningful responses to the situations in which people found themselves, and to the cultures, including work cultures, of which they were a part (Blumer 1962; Goffman, 1961).

In education, symbolic interactionist interpretations of teaching extended as far back as Willard Waller's (1932) classic yet unflattering discussion of what teaching as an occupation did to teachers in his text on The Sociology of Teaching. In the early 1950s, Howard Becker, another Chicago sociologist, completed a PhD study that explained the unusual (but uncannily still relevant) way in which Chicago public school teachers constructed their careers. When they came out of training, Becker found, new teachers often began working in areas of inner city deprivation but quickly learned that their best way to progress was to pursue a *lateral career* that would take them out to easier schools in the more prosperous suburbs (Becker, 1952). Not everyone managed this, though, so those who were left behind started to make situational adjustments to their environment and rationalized that they were better off where they were. The status of their students as seemingly slow learners meant that once teachers got a grip on classroom control, they didn't need to teach as hard or as fast, prepare as much, or face parental scrutiny, compared to their more upwardly mobile peers.

Inspired by this literature and an emerging body of ethnographic research among my contemporaries, I began to interpret the classroom practices I was seeing in terms of a theory I devised of classroom coping strategies where teachers made strategic responses to situational constraints and opportunities (Hargreaves, 1977, 1978). These were not isolated or idiosyncratic responses but were made in relation to patterns adopted by other teachers in the surrounding work culture through their shared biographies, identities and careers. By chance, the teachers I wanted to compare were more accessible in middle schools for children aged 9-13 than in conventional 7-11 primary schools. Though this difference seemed immaterial at first, it turned out to be significant. The most important differences among the teachers, I discovered, were not between those in progressive and traditional schools, but between the upper and lower ends of both middle schools.

My PhD thesis and subsequent book on Two Cultures of Schooling (Hargreaves, 1986) documented how former high school teachers and former primary school teachers who had been recruited to staff newly created middle schools, found it hard to form a unique culture of middle schools that was meant to give young adolescents a smooth transition from childhood into the teenage years.

An influential literature on secondary school teachers' cultures had already emerged in the UK, illustrating that secondary teachers were not all alike, but formed different and sometimes competing subcultures based on their subject identities, allegiances, and careers (Goodson, 1983; Goodson & Ball, 1985). Similar forces, I discovered, also occurred in middle schools. Teachers' biographies, identities, cultures and career trajectories led them to repeat, reinforce and even exaggerate their previous primary and secondary school attachments—with the result that gaps and leaps in children's experiences at age 11 in amounts of subject specialization or ability grouping were even greater in the 9-13 middle school than they were when children had transferred from primary to secondary schools.

Breaking down silos in cultures of teaching between different subjects, different levels, or between classroom teachers on the one hand and second language or special education teachers on the other, for example, remains a constant challenge in efforts to educate the whole child or integrate the curriculum. Culture and collaboration are clearly central to any efforts to break down silos between cultures of teaching. They can also provide ways to counter cultures of individualism in teaching that have been widely regarded as serious impediments to improvement efforts.

Creating collaborative cultures

In 1987, I moved to Ontario, in Canada. Some years earlier, a key research study by yet another Chicago sociologist—Dan Lortie (1975)—based on interviews with 94 teachers in the Greater Boston area of the US, concluded that teaching was characterized by three interlocking elements: presentism (focusing on the short term), conservatism (concentrating on small-scale rather than whole-school changes) and individualism (performing teaching in isolation from other teachers). Teachers in these circumstances were plagued by what he called 'uncertainty'.

By the late 1980s, research in the US was starting to indicate that within Lortie's trinity of variables that defined the culture of teaching, individualism, and it's opposite, collaboration, might be the key one to try and change. Susan Rosenholtz's (1989) influential study of 78 Tennessee elementary schools highlighted two kinds of schools -learning enriched and learning impoverished. The learning enriched ones that got stronger results in mathematics and literacy after controlling for students' social background were more collaborative and able to build stronger senses of confidence or certainty about good practice. By contrast, in the learning impoverished schools, teachers worked in isolation and became uncertain and rigid about their practice, as there were no means to gain regular feedback on performance. Other studies of teacher collaboration have persistently pointed to positive impact on student achievement (Bryk & Schneider, 2002; Leana, 2011).

For researchers in the 1990s, undoing individualism and isolation by building more collaborative cultures in schools was seen as a positive direction, but the persistence of presentism or shortage of time out of class to work with colleagues was regarded as a significant obstacle.

By chance, when I arrived to take up my position at the Ontario Institute for Studies in Education, the elementary teachers' unions had successfully bargained for significant increases in preparation time for teachers away from their classes. Ontario, it seemed, had now significantly shifted one of Lortie's variables—presentism, or time. Would more time out of the classroom give teachers more time to collaborate together, or, busy as they were, would they continue to use the time individually? Would ameliorating presentism help reduce individualism?

I interviewed teachers about their uses of preparation time in two suburban districts one that was widely regarded as unremarkable; and another that was specifically promoting collaborative planning. Teachers in the first district used their time to perform more individual tasks like grading, lesson preparation or contacting parents. Indeed, some didn't even want more preparation time because they would have to share their classes with covering teachers. In the second district, though, with the backing of leadership from school principals, increased preparation time did enhance collaborative efforts. Leadership, and not just time alone, was needed to change the culture of teaching (Hargreaves, 1994a).

In 1990, Ontarians elected their first and only socialist government in history. Educational reform was a significant part of its platform. A profusion of high school courses, choices and credits had become bewildering for students and the effects of this had trickled down to younger students in grades 7, 8 and 9 in the form of watered-down high school methods and fragmented curriculum offerings that sowed the seeds of dropout. So the government made what it called *The Transition Years* the centrepiece of its educational reform strategy. Already committed to broad, orientating standards similar to common learning outcomes then being developed in parts of the United States, the Ministry of Education hired a school district researcher, Lorna Earl (who would eventually create and lead an International Centre for Educational Change with me) and me to undertake a literature review of best practices and reform strategies for this age group.

Our report advocated both rigour and relevance for this phase of schooling that would be grounded in new school structures such as interdisciplinary teaching, schoolswithin-schools, student mentoring systems, alternative forms of assessment, and detracking (destreaming). These structures, we argued, would develop greater

engagement for students and create new interactions among teachers that were more concentrated on students and their learning than subjects and their content (Hargreaves, Earl, & Ryan, 1996). The Deputy Minister demonstrated his enthusiasm for the report by distributing it to every school in the province and asking us to follow it up with an energetic roll-out of presentations and workshops.

We were then asked to evaluate the implementation of our recommendations in a series of pilot projects. For many classroom teachers on the receiving end of this change, we learned, the combination of centralized frameworks and initiatives with decentralized roles and responsibilities seemed bewilderingly contradictory. Portfolio assessments were paralleled by standardized tests. Interdisciplinary initiatives ran alongside subject-based report cards (Hargreaves, Earl, Moore & Manning 2001). There had been a lot of restructuring. But efforts at what I called *reculturing* the belief system and relationships of teaching to suit the needs of early adolescents were uneven at best (Hargreaves, 1994b).

Much of the effectiveness of change actually depended on the quality of collaboration. Cultural change was a pre-requisite for effective structural change. Under excellent leadership, teachers in some schools could make sense of the complexity and ambiguity of the very broad outcomes, or figure out how to work together as teams with mixed ability classes. The most enthusiastic of these teachers tended to be younger or taught in marginal subject areas like special education, counselling, or the arts. They succeeded in maintaining their own core purposes while still addressing the outcomes and accommodating to the structures. Under weak or overly controlling leadership, though, many other teachers were fragmented and frustrated: especially more mature teachers in the conventional, high status and highly tested subjects of the secondary school curriculum. They tended to interpret reforms literally or minimally, by making them as similar as possible to existing and already known practices: replacing three streams between classes to three streams within their classes, for example.

When reculturing worked well, its results were strong and sustained. It brought teachers together around common goals in support of change that offered profound benefits to students. Successful reculturing, however, depended on collaborative leadership and embedded professional development in schools and districts that were not yet consistently evident across the province.

The importance of leadership in establishing collaborative cultures within environments of top-down reform was further illustrated in our study of the emotions of teaching in the late 1990s, when we asked teachers about their emotional experiences of educational change (Hargreaves, 2004). One unsurprising finding was that teachers were overwhelmingly positive about changes they had initiated themselves, and equally critical of changes that had been imposed from the district or the government above. Curiously though, when we investigated where the changes that teachers said were selfinitiated had first begun, almost half of them actually had their origins in a provincial policy or a district initiative. Whether changes seemed self- initiated or not therefore depended as much on how well leaders helped teachers develop collective ownership of them, as on where the changes technically came from.

Critiquing collaboration

Collaboration is not always beneficial, even if its effects are generally positive. In some countries, it is hard even to mention collaboration without it invoking painful wartime memories of collaboration with an enemy. Many leaders are eager to engage their teachers in collaboration for strategic reasons, but not to empower them through it. Others want to colonize collaborative efforts with purposes and activities other than ones teachers might initiate themselves.

In 1989, I was invited by a new established Context Centre led by Milbrey McLaughlin at Stanford University to contribute to a symposium on professional communities at the annual meeting of the American Educational Research Association (AERA). The Context Centre wanted to bring together its own growing team of faculty and graduate students with researchers from the UK who had studied cultures of subject communities in secondary schools. Two other members of this group were myself, an ex-pat Brit from Canada, and Berkeley University professor, Judith Warren Little. At the same time, in the same place, without any prior communication, we each showed up with very similar but not completely identical papers and ideas that would leave a lasting impact in the field.

Judith picked up from Lortie's legacy and wrote a theoretical paper discussing the persistence of individualism in teaching. There had been efforts to create more collaboration since Lortie's time, she argued, but these had been 'conceptually amorphous and ideologically sanguine' (Little, 1990). Most memorably, she developed a much-cited continuum of collaboration that showed how most efforts at collaboration were restricted to storytelling or sharing ideas, materials and practices. This was because teaching was still dominated by 'norms of politeness and non-interference'. At the other end were more scarce efforts to commit to the literal meaning of collaboration—co-labouring together through joint work rather than superficial talk. Much collaboration, she claimed, didn't amount to much, and was too weak and underdeveloped to make a difference.

The OECD's 2013 TALIS studies (Teaching and Learning in Schools) that surveyed teachers of 13 year olds about their perceptions of their work practices and conditions came to similar conclusions (Organization for Economic Cooperation and Development, 2016). The most frequent collaborative practices reported by teachers were discussing individual students and sharing resources. Less frequently, they engaged in team teaching and collaborative professional development. Least frequent of all were joint activities and classroom observations.

In the same AERA conference symposium, drawing on my work with a graduate student, Ruth Dawe, where we had evaluated the coaching practices being used in a university partnership with school districts, and also examined some of the collaborative practices I had seen in the preparation time study, I put forward a new concept that was critical of some aspects of collaboration. I labelled it, contrived collegiality (Fullan & Hargreaves, 1991; Hargreaves, 1994a, 1991; Hargreaves & Dawe, 1990).

The article compared contrived collegiality to more authentic and spontaneous collaborative cultures.

Collaborative cultures comprise evolutionary relationships of openness, trust, and support among teachers where they define and develop their own purposes as a community. Contrived collegiality consists of administratively contrived interactions among teachers where they meet and work to implement the curricula and instructional strategies developed by others. Collaborative cultures foster teacher and curriculum development. Contrived collegiality enhances administrative control. (p227)

Collaborative cultures were established through informality and spontaneity around interests and activities that teachers created themselves, and were flexibly organized in time and space. Contrived collegiality, meanwhile, was formal, predetermined, and fixed in time and space in pre-set meetings through the exercise of administrative power. In the preparation time study, for example, some of the principals in the cluster of collaborative schools tried to force collaboration upon their teachers—instructing them where and when to collaborate and what to collaborate about. In one school, teachers who were already meeting to collaborate together were then instructed to keep minutes of their meetings. The result was that they collaborated less.

The collaborative planning initiative in the Ontario school district we studied represented the early stages of a wider movement to design collaboration deliberately. The knowledge that professional collaboration led to increased student achievement prompted a growing number of researchers, consultants and school systems to develop or adopt specific structures and designs to support teacher collaboration. By far the most popular and widespread of all these designs was one that was named professional learning communities (PLCs). Although there was a respectable literature on the nature and importance of communities of practice (Lave & Wenger, 1991), organizational learning (Senge, 2006), and professional communities (McLaughlin & Talbert, 2001), the first person to bring together the terms of professional, learning, and community into a single idea was educational change expert, Shirley Hord (1997).

Hord defined a professional learning community as something where teachers inquired into how to improve their practice together and took collective responsibility for implementing what they discovered. From the mid-1990s, though, former school superintendent, Rick Dufour along with Becky Dufour and Bob Eaker, wrote programmatic handbooks and developed associated workshops that turned PLCs into a particular method and set of meetings (e.g. DuFour, DuFour, & Eaker, 2008). These consisted of establishing clear goals, promoting team-building, gathering data, undertaking problem-solving, and designing interventions.

In practice, although these kinds of PLCs became widely adopted globally, the results were mixed, at best. Many top-down systems, especially in the US, rushed to take up PLCs as a way to implement their policies (Datnow, 2011; Wood, 2007). In these cases, in high- threat policy environments, PLCs were often driven by principals who prioritized accountability agendas directed to short-term achievement gains on narrow metrics of success (Daly, Der-Martirosian, Ong-Dean, Park, & Wishard-Guerra, 2011). In response, teachers withheld their trust, restricted their participation, or left the schools and the profession altogether. This may explain the findings of a survey conducted by the Boston Consulting Group (2014) which showed that among teachers, collaborative professional learning experiences were only half as popular as conventional workshops, and more than half of all teachers surveyed actively disliked PLCs. By comparison, PLCs attracted much stronger support from administrators. In the high-stakes environment of US educational reform, at least, PLCs often became little more than a way to try and get teachers to commit to things that administrators wanted them to do.

Even where the stakes were less high, though, such as in Canada, exporting a PLC model that was originally designed to fit a top-down US environment, still gave rise to many problems. For example, when we evaluated the 13 year-old, \$80m per year Alberta School Improvement Initiative in 2009, while all of the participating districts had submitted collaborative proposals, they varied a lot. So we selected three districts for closer study to highlight this variation (Hargreaves et al., 2009; Hargreaves & Shirley, 2012). In one of these, project resources were distributed across the schools to release small amounts of time for many teachers to collaborate in school time around their own interests, with the ironic result that the district's superintendent got closer to the practice and knew his educators more as they worked together with each other. The other two districts were more top-down in their approach. One of these allocated the lion's share of its resources to a single co-ordinator and to hiring the Dufour team to train the district in PLCs. The results were less impressive and did not spread much beyond the coordinator or the training event to the rest of the district's teachers.

In contrast to these critical responses to PLCs, when leadership has emphasized schools' and teachers' own goals and included teachers in decision-making, PLCs have energized educators and led to improvements in outcomes. This was evident in one of eight schools we studied for a Spencer Foundation funded project on educators' experiences of educational change in innovative and traditional high schools (Hargreaves & Goodson, 2006). In a newly established school, the principal, who had completed a graduate dissertation on learning organizations, deliberately designed the school and its operations on learning organization principles (Giles & Hargreaves, 2006; Hargreaves, 2003; Senge, 2006). Here, professional learning communities were not just a collection of meetings but a way of life. Teachers taught cohorts of ninth grade students in collaborative teams of four. They planned curriculum, taught the students in flexible groupings, and discussed students' progress together. Problems in the school became points for shared inquiry, not rushed intervention. Disappointing data revealing increasing student absenteeism, for example, were not suppressed but shared openly with parents so everyone could take collective responsibility for solving problems together. Teachers cared about each other as people, and encouraged each other to take time off when they were sick, reassured by the fact that their substitute teacher would not be a stranger who might wreck their class, but someone who would just become one more member of the 4-person team that worked together.

The strongest collaborative communities of teachers can withstand and even resist adverse policy environments. In the midst of our Spencer Foundation study, for example, the Ontario schools suddenly found themselves subject to the control of a newly elected populist government. This government imposed a new curriculum at breakneck speed, drove experienced teachers into early retirement by shaming the profession in the media, and cut back on teachers' preparation time outside of class. In response, teachers embarked on a period of work-to-rule where they refused to participate in extra-curricular activities, meetings, or professional learning events. Yet in the midst of all this, one highly collaborative school in our sample was still able to convene teachers for staff meetings. It did this by starting the meetings with two teachers' satirical presentation of a sock-puppet show, starring a talking fish that hilariously mocked all the government's latest policies.

This school, and the purpose-built innovative one, though, were very much exceptions to the wider policy movement in Ontario, New York State (where the US half of our Spencer study sample was located), and beyond, in which high stakes accountability, standardization and micromanagement of teachers' time played a large part. My book, Teaching In the Knowledge Society, described research from this Spencer

Foundation funded study showing how these forces had many negative effects, including on teacher collaboration (Hargreaves, 2003). Although the preparation time study had shown that giving teachers' extra time does not guarantee they will collaborate more, taking that time away or micromanaging it, led teachers to collaborate less.

In summary, a growing body of research was pointing to how teacher collaboration could be too comfortable in maintaining Little's norms of politeness on the one hand, and too contrived and controlling in imposing political pressure or bureaucratic will on teachers, on the other. What would come next in my own work and elsewhere would be efforts and understandings about how to push collaboration further, and give it a bit more edge, not in ways that undermined teachers' relationships but so that these relationships could be strengthened and enriched.

The cutting edge of collaboration

Over the past 10 years, my research, along with other research in the field—especially that of my colleague Michael Fullan—has started to uncover and examine examples of educational collaboration that are not just between practices that are too comfortable or contrived, but somehow above and beyond these polar opposites.

In 2012, Michael and I wrote a book called Professional Capital (Hargreaves & Fullan, 2012). Other than one passing mention in educational leadership, and a couple of articles and PhD dissertations in health, professional capital turned out to be a completely new idea that, according to The Grawemeyer Award, was the idea in education that year most likely to have the greatest worldwide impact.

We used the metaphor of capital to establish the point that in teaching as elsewhere, if we want a return, we have to make an investment. Unfortunately, we argued, in the US, and England especially, educational change was being driven by the wrong kind of capital -business capital-where public education reform was underpinned by the intent to increase returns to the private sector. This occurred directly, in the form of ownership of proliferating charter schools and academies. It also occurred indirectly. First, parents fled from the public sector in response to government strategies to identify and label more and more district-run public schools as failing. Second, efforts were made to lower the cost of public education by recruiting and turning over large cohorts of young teachers on much lower salaries than their more experienced counterparts.

By contrast, we argued, professional capital had three components. Human capital was about the quality of individuals; their competence, knowledge, qualifications and commitment. Decisional or decision-making capital was about teachers' professional judgment and how it developed through experience and professional learning and coaching over time. This, we said, justified teachers having longer careers rather than shorter ones. Although US data contradicted the value of decisional capital, because it indicated that teacher effectiveness hit a plateau after about four years, other countries, with higher quality and more strongly funded professional development, indicated that teachers reached their peak much later, well into in mid-career.

The most critical component was the third one, of social capital. Social capital is the capital people have together through their networks of learning, strength of mutual support, shared professional development, and firm foundations of trust. Social capital, we pointed out, adds value to individual human capital—but as we showed back in the early 1990s, not any kind of social capital or professional collaboration will do.

Two insights about collaboration pulled our work forward. First, Michael Fullan and I looked at how people could both pull and push improvement, not hierarchically, but laterally, peer to peer—pulling each other in by inspiration and motivation to engage in interesting work, and pushing each other on and up to ever-higher standards of performance together. The culmination of this thinking was to be found in what we learned about creative attempts to combine collaboration with competition.

From 2007, I had been working with Alma Harris and Alan Boyle on a large project across 8 countries and 3 sectors (business, sport and education) to discover the secrets of high performance in circumstances that many might regard as less than favourable (Hargreaves, Boyle & Harris, 2014). When we collected data from Cricket Australia—the national cricket organization of Australia—we were introduced to a new way in which collaboration can contribute to unusually high performance. Following two economists, Brandenburger and Nalebuff (1996), Cricket Australia's business and media specialist called the strategy co-opetition. Co-opetition was about collaborating with competitors to achieve a common goal together. One of Cricket Australia's leading competitors on the field was India. But off the field, India was also Australia's major source of media revenue for televised performances. The tighter the games were, the more viewers would be attracted to watching them. So Australia invested in developing the cricket talent of India so it would reach Australia's standard—producing close-fought contests that viewers would enjoy.

This unusual aspect of collaboration was not confined to this one example. A wellknown alternative US craft beer brewing company promoted the brands of its microbrewing competitors as well as its own in order to draw more customers away from the standardized breweries to the benefit of their own alternative sector. Burnley Football Club in England developed anti-racist community initiatives in collaboration with its local rival, Blackburn Rovers. And, in education, the London Borough of Hackney raised the district's educational performance from being the worst in the England to standing above the national average, by contractually requiring and culturally expecting principals of competing schools to collaborate with each other in raising each other's performance as well as their own. The result was that all schools' performance improved, parents stopped sending their children away to other districts, and they committed to supporting the schools in their own community instead.

This research and the ideas about pushing and pulling, and co-opetition, were pointing to ways in which teacher and school collaboration could be tightened and deepened by deliberate actions and designs, rather than simply leaving collaborative efforts to the spontaneous and informal initiatives of teachers themselves. Structures and policies, we were finding, were not always impediments to effective collaboration, but, developed in the right way, they could also be considerable assets. The bringing together of structure and culture, and of formality and informality, led to the development of a new idea of collaborative professionalism.

Collaborative professionalism

Unlike professional capital, collaborative professionalism did not originate in my own writing or research. In 2015, after a long period of industrial action against funding cuts associated with the government's austerity strategy, the Ontario Ministry of Education produced a memorandum stating its intention to establish, with its partners, including teacher unions, administrator organizations and school district leaders, 'a vision for collaborative professionalism that improves student achievement and well-being.' Their deliberations led to the following definition of collaborative professionalism.

Collaborative Professionalism in Ontario is defined as professionals—at all levels of the education system—working together, sharing knowledge, skills and experience to improve student achievement, and the well-being of both students and staff. Collaborative Professionalism values the voices of all and reflects an approach in support of our shared responsibility to provide equitable access to learning for all. All staff are valued and have a shared responsibility as they contribute to collaborative learning cultures (Ontario Ministry of Education, 2016).

From 2007 to 2011, and then again from 2014-2018, my Boston College colleagues and I had the opportunity to undertake research and development with 10 (about a seventh) of Ontario school districts. The methodology for this extensive work is reported elsewhere (Hargreaves & Braun, 2012; Hargreaves, Shirley, Wangia, Bacon, & D'Angelo, 2018), but one crucial component of it involved writing detailed case studies of up to 10,000 words for each district. This subsequently enabled us to examine how aspects of teaching, leadership and educational change had developed over time. Although collaboration among educators was strongly present in both periods, the form the collaboration took changed significantly. More and more, collaboration seemed to be moving not just towards the definition of collaborative professionalism established in the Ministry of Education memorandum, but also beyond it.

For example, our 2011 report acknowledged how professional learning communities (PLCs) had been defined in the province's philosophy of Education for All in 2005. The term professional learning community, the report argued, refers to:

a way of operating that emphasizes the importance of **nurturing and celebrating** the work of each individual staff person and of supporting the collective engagement of staff in such activities as the development of a shared vision of schooling and learning, capacity building, problem identification, learning and about students, teaching, and learning identifying related issues and problems and debating strategies that could bring about real change in the organization.(Ontario Ministry of Education, 2005)

Apart from the inclusion of debating, this definition of professional learning communities involved nurturing, celebrating, supporting, sharing and learning. This kind of collaboration provides reassurance while avoiding unpleasant or difficult subjects. It treats all teachers as implicitly equal, which makes it hard to acknowledge that expertise is hard-won, unevenly distributed, and warrants the respect that should be accorded to anyone with an especially impressive professional knowledge base.

By the time of the later study, educators remarked that their conversations were more focused and action oriented. Collaborative inquiry was now widespread, strongly supported by Ministry policy and by documents that provided guidance for educators (Donohoo, 2013). Teachers were more often the drivers of their own collaboration now. Three districts provide contrasting examples.

In one district in Ontario's far north, we joined a principal and two teachers as they reviewed student work and literacy assessments in their PLC. 'We get substitute teachers in so that our teachers can work collaboratively', the principal explained. 'Teachers get to pick their topics based on student data and then their interests.' The data include test scores, report cards, anecdotal observations, and other assessments.

This PLC had a protocol for examining student work. The team looked at assessments, thought about the curriculum and instruction, and then reflected on if and how instruction should be changed to meet student needs and inform future lesson planning. All of these conversations were grounded in the assessment data. 'I personally love the synergy of that team,' the principal explained. "They're very comfortable to press one another's thinking. They're very comfortable saying 'I agree or I don't agree.' You saw it a couple of times, a teacher saying, 'You know, I'm not going to do it that way. I'm going to try this instead." The principal probed and encouraged, asking questions like, 'What happens next?' to keep the discussion moving.

Then, the teachers suddenly stopped the PLC in mid-stream to move the discussion right to the students themselves. A kindergarten teacher was curious why a student gave a particular answer for their reading comprehension assessment. She decided to go down the hall to ask the student about how she approached, thought about, and responded to the question. The teacher learned that there's probably been some overthinking on the student's part, but that the wording of the question may also have been confusing. Back in the PLC, the teacher incorporated the student's perceptions in discussions about the team's plans for future support in reading comprehension. Teachers, the principal, and students too had now become part of the PLC.

A second district infused collaborative professionalism into its PLCS by having participants work together to engage with multi-media and technology to supplement science instruction, spur student interest and situate learning in the real world. A teacher put it like this:

It allowed us to meet with other science teachers from other schools and see what worked for them that may not have worked for us. We shared stories. We shared what worked, and what didn't work. We brought together ideas. We've made friends, we're closer, and that, to me, is what's really important. Then we take it back to the class and the kids are just eating it up.

There is a fine line between where a PLC stops being a formal set of meetings and turns into a genuine a culture of collaborative inquiry where activities become pervasive and embedded. For example, an Ontario Ministry document in 2014 argued that, 'through collaborative inquiry, educators work together to improve their understanding of what learning is (or could be), generate evidence of what's working (and what's not), make decisions about next steps and take action to introduce improvements and innovations.'

Since 2011, the commitment to collaborative professional learning has delved deeper into principles, protocols and processes and started to include all staff in districts, from educational assistants to system leaders. For example, a director in a third district tried to run it like a learning organization where feedback was constant and everyone learned from each other. At the heart of the district's work was a team of consultants who each worked with a family of schools, and instructional coaches who were assigned to three schools each. The consultants and coaches collaborated on working with individual teachers to reflect on and share their practice with larger school groups on professional development days. At the school and district levels, the coaches and consultants worked in interdisciplinary and inclusive teams representing different roles and identities to implement projects, initiatives and school-driven inquiries in the context of being an effective learning organization.

For example, schools were expected to undertake their own inquiries into mathematics topics like number sense. District leaders mirrored this expectation by undertaking their own inquiries. The Director was candid about inspecting his own leadership in this sense.

As a leader, I thought I've participated with many schools in coaching and training. I said, "Are we actually applying some of those skills in our Exec Council team meeting?" "No, we're not." "We're not even modelling and using the tools that we've been trained in our team." I said, "Am I using the right protocols to help facilitate?" I had to look at it in terms of my role in terms of facilitating my team—so being very intentional around my leadership behaviours with my class.

Being 'deliberate' and 'intentional' about how to build a more effective team was crucial to strengthening trust, the director felt. So too was developing 'a proper protocol to facilitate [conversations] because we know ahead of time what the purpose of the conversation is and whether the person has had a chance to gain advice, and then trust their work away from the table when they come back with a recommendation.'

Part of the approach to establishing greater trust was in demonstrating these practices and protocols through example.

Some of us have become very visible about what our inquiry is currently. Some superintendents actually share it with their learning team structures as you're developing your own inquiry. This is the inquiry I'm working on. The visibility of that shows the vulnerability that I'm a learner, too. Because of my position, I'm not the expert, but I should be the lead learner in the organization.

Within the context of being a learning organization, it was important to see colleagues with dissident perspectives as professionals holding views that should be actively solicited. 'We tend to hear the voices that resonate with us—the early adopters that are moving forward', the director reflected, 'but not the 20% or so who are less enthusiastic' The director described an upcoming meeting with educational assistants and their union that was designed to address this issue.

We're going out to listen to those who've given us some feedback, that are not engaged, that are not feeling that their well-being is being considered. We're going to take a risk to listen to them with their union leader. We know it'll be difficult (but, we're asking) "What's the structure we're going to create to try to give you a voice as an educational assistant in our system?" We think it's important enough to hear their voice and to figure out how they can be part of the solution.

In all three cases, collaborative inquiry was not merely a process to look at data to lift scores in literacy and mathematics, but also a way for learning to permeate the whole organization. It was enacted and valued by administrators themselves. It involved open and challenging dialogue that admitted vulnerability and gaps in expertise, that in turn called forth the knowledge and expertise of colleagues. It required deeper informal trust on the one hand, and more precise formal protocols and procedures on the other. This and other PLCs now reflect collaborative professionalism in their broader purposes, in the extent to which they incorporate teacher involvement and leadership, in how they start to draw in students, and in how collaboration permeates the whole life of the school. Conversations are more open and direct. Talk leads to action.

This is what Michael O'Connor and I found in a contemporaneous study for the WISE Foundation of reputationally strong examples of deliberately designed collaboration—such as lesson study, collaborative planning or cooperative learning among educators—in five different countries and their cultures (Hargreaves & O'Connor 2017, 2018). Listening to participants describe how collaborative practices had evolved, we saw how they had progressed towards our own revised and now more robust definition of collaborative professionalism (compared to its original definition in Ontario) that was reflected in this evidence.

In collaborative professionalism, educators did not merely talk and share; they engaged reflectively in Judith Warren Little's joint work together. More and more collaborative work was driven by teachers rather than by administrators. Administrators were now also undertaking demanding collaborative inquiry of their own together and not just leading their teachers to engage in it. Professional conversations were neither too comfortable nor too contrived. Nor were they simply a balanced mid-point in between these things. Dialogue became deep and demanding, yet trusting and respectful at the same time. Collaborative professionalism was no longer about a set of PLC meetings, but about collaborative inquiry and action, and collective responsibility, as defining the essence of professional life. In collaborative professionalism, formal protocols and informal processes worked together. Instead of contriving and constraining teachers' professional interactions, protocols and structures were designed to enrich them (see also Datnow & Park, 2018).

Conclusion and implications

So what have we learned over 30 years of research into collaboration among educators? For almost a century, the human relations school of management has revealed that people perform better in their work when others take an interest in them and that there is a strong relationship between friendship and output, though it is far from straightforward. Close friends don't always make the most productive colleagues, and vice versa.

By the beginning of the 1990s, however, research began to show that a longstanding culture of individualism could sometimes be transformed into a culture of collaboration, and that the consequences of this for student achievement and teacher motivation and engagement were generally positive.

Starting with my own and Judith Warren Little's research, however, the 1990s also saw the emergence of critiques of collaboration. Researchers who have held allegiances to school administrators and policy-makers took up one side of the critique and complained that teachers were too polite and too afraid of external evaluation and accountability to collaborate properly or even to collaborate at all (e.g. Dufour, 1992). Researchers like myself who collected data mainly from teachers, argued that collaboration was too often employed as a tool of administrative control, especially in circumstances of top-down reform seeking short-term political gains.

One of the greatest impediments to collaboration and educational change, it is often argued, is time, but my own research in Canada revealed that while time away from class is usually a necessary condition for effective collaboration, it is not sufficient. Leadership also has to encourage, engage and empower teachers in the collaborative quest. However, reducing teachers' time out of class makes it almost certain that teachers will collaborate less. And since teachers can and do collaborate to resist bad reforms as well as to implement good ones, it is not surprising that populist governments seeking to strip back the public sector introduce measures that restrict educators' capacity to collaborate. These include increasing class sizes and associated individual workloads, reducing preparation time, and using austerity measures to restrict educators' travel to conferences or other schools.

Over the past 25 years, following the findings that collaboration can increase student achievement and reduce teacher conservatism towards change, many specific designs have emerged to initiate or increase collaborative activity in schools. These include but are not restricted to professional learning communities, collaborative planning, learning walks, instructional rounds, collaborative inquiry, lesson study, school networks, data teams, self-evaluation processes, and peer review. Our research on collaborative professionalism is one of the first efforts to collate and compare some of these designs in a deliberate way and to see what can be learned from them.

One next step in research on collaboration might be to compile a more comprehensive inventory or typology of teacher collaboration designs and to analyse them in terms of their relative impact and effectiveness. Such research on teacher collaboration and on teacher professional practice generally might also usefully extend beyond Northern and Western settings to include the Global South and the East as well as the North and West, and to investigate online as well as face-to-face forms of collaboration.

A step forward for policy and system leaders would be to engage in long-term building of collaboration as a context for implementing present and future policies. In democracies, while governments and policies will always be prone to change, and even to overturning each other's policies, investing in building collaborative cultures in education will make it more likely that all policies, other than truly cynical ones that have no intention of improving teaching and learning at all, will have greater chances of being implemented successfully over time.

We are in a period of educational change when collaboration seems to have become the answer to almost everything. If collaborative efforts prove insufficient for or ineffective in the face of the complex challenges we now face of deeper learning and greater wellbeing, then teachers will retreat back to their own classrooms, and policy makers will return to top-down solutions. It is important now, therefore, not just that teachers collaborate, but that they collaborate well, and that school and system leaders enable and empower them to do that.

Note

1. (1.8).

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No potential conflict of interest was reported by the author.



Notes on contributor

Andy Hargreaves has studied and written about the teaching profession and researched teacher collaboration for four decades, based in the UK, then Canada and the United States. His 1994 book, Changing Teachers, Changing Times received the American Association of Colleges for Teacher Education (AACTE) Outstanding Writing Award. His 2003 book, Teaching In The Knowledge Society received the Outstanding Book Award from the American Educational Research Association, Division B, Curriculum Studies and the Choice Outstanding Book Award from the American Libraries Association. His 2012 book with Michael Fullan on Professional Capital received the 2015 Grawemeyer Award, the highest value book award in the field, as well as AACTE's Outstanding Book Award and The Award of Merit from the International Leadership Association.

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