Teacher Learning and Leadership for Classroom, School and System Improvement

Aprendizaje y liderazgo docente en pos del mejoramiento del sistema y de la docencia en las salas de clase y en los establecimientos

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Abstract

This article presents a study of the Teacher Learning and Leadership Program (TLLP), a joint initiative between the government (Ontario Ministry of Education) and the teachers' unions (Ontario Teachers' Federation and affiliates) in Ontario, Canada. The goals of TLLP are to support experienced teachers' professional learning, leadership and knowledge exchange. Our research utilized a mixed methods design to examine to what extent the goals of TLLP have been realized. The main features for teachers' learning identified were the importance of an emphasis on experienced teachers' leading their own learning and the learning of other teachers, and the empowering nature of teachers making their practice public and collaborating with benefits for new knowledge, improved understanding and changes in practice. For developing teachers' leadership, the main benefits were: the development of leadership skills and experiences; opportunities to influence school and system improvements; and recognition as a teacher leader. Knowledge exchange involved developing professional learning, fostering collaboration, creating resources and using communication strategies. The main challenges were time, team dynamics, overcoming resistance and practicalities of project delivery. We conclude that the TLLP is professionally valuable for supporting teachers' learning and leadership and educationally valuable by generating improvements in practices.

Keywords: teachers, teacher leadership, professional learning, school improvement

Resumen

Este artículo presenta un estudio del *Teacher Learning and Leadership Program* (TLLP, 'Programa de Aprendizaje y Liderazgo Docente'), una iniciativa emprendida por el Gobierno de Canadá (a través del Ministerio de Educación de Ontario) junto con sindicatos de profesores (representados por la Federación de Profesores de Ontario y las entidades afiliadas) en Ontario, Canadá. Las metas del TLLP son fomentar el aprendizaje profesional, el desarrollo del liderazgo y el intercambio de conocimiento entre los profesores experimentados. Nuestra investigación se llevó a cabo sobre la base de una combinación de métodos orientados a examinar hasta qué punto se han cumplido los objetivos del programa. Los principales factores de aprendizaje docente identificados fueron la importancia de permitir a los profesores experimentados dirigir su propio aprendizaje y el de otros docentes y los beneficios de la divulgación de sus prácticas y de la colaboración para la producción de conocimientos nuevos, la mejora de la comprensión y la generación de cambios en las prácticas. En cuanto al desarrollo del liderazgo docente, los principales beneficios fueron: el desarrollo de habilidades y experiencias de liderazgo, oportunidades para contribuir a mejorar los establecimientos y el sistema, y el reconocimiento del liderazgo de los docentes. El intercambio de conocimientos implicó desarrollar el aprendizaje profesional, fomentar la colaboración, generar recursos y usar estrategias de comunicación. Los principales desafíos fueron el tiempo, las dinámicas de equipo, la superación de resistencias y los aspectos prácticos relativos al cumplimiento del proyecto. Concluimos que el TLLP es una medida valiosa desde el punto de vista profesional para ayudar a desarrollar el aprendizaje y el liderazgo de los profesores, así como valiosa en términos educativos al propiciar mejoras en las prácticas.

Palabras clave: profesores, liderazgo docente, aprendizaje profesional, mejora de establecimientos

This article presents a study of the Teacher Learning and Leadership Program (TLLP) in Ontario, Canada. Introduced in 2007, the TLLP is a joint initiative between the Ontario Ministry of Education (Ministry) and the Ontario Teachers' Federation (OTF) with goals to support experienced teachers' professional learning, develop teachers' leadership and support knowledge exchange for improvements in teachers' practices. Our research was funded by OTF to examine the value of the TLLP, to identify to what extent the goals of TLLP have been realized and to draw lessons from the TLLP for going forward (Campbell, Lieberman, & Yashkina, 2013).

Literature review

We begin by situating this study within wider developments to support school effectiveness and improvement, the growing attention to the importance of teachers and teaching, the nature of teachers' professional learning and rising interest in teachers' leadership as part of classroom, school and system improvement strategies.

Effective schools and school improvement

The importance of teacher quality and teaching is a central feature of school effectiveness and improvement research. While the origins of studies of school 'effects' indicated the larger influence of students' background characteristics (Coleman et al., 1966) and the limited impact of schools on students' achievement gains and, in particular, persisting inequalities for students from different racial, ethnic and socio-economic backgrounds (Jencks et al., 1972), methodological and empirical developments have increased attention to the factors within schools that appear to make a difference for improving student achievement outcomes. As Reynolds and Creemers (1990, p. 1) proposed, School Effectiveness Research (SER) has become: "Based around the central idea that schools matter, that schools do have a major effect upon children's development and that, to put it simply, schools make a difference."

Although this focus on how schools make a difference has been contested (Thrupp, 1999) and there are many variations on 'characteristics' and/or 'processes' of effective schools, the importance of features associated with teachers and teaching are commonly identified. For example, Edmonds' (1979) seminal study of effective schools included a focus on teaching and learning. Later work has expanded and refined the characteristics of effective schools. For example, Levine and Lezotte (1990) and Lezotte's (1991) model includes "instructional leadership". Sammons, Hillman and Mortimore's (1995) factors include a concentration on teaching and learning and purposeful teaching. In considering not only "What makes a 'good' school?", but also "How do we make more schools 'good'?" (Reynolds, Sammons, DeFraine, Townsend, & VanDamme, 2011, p. 1), the processes of effective teaching and of developing professional learning and skills have been identified (Teddlie & Reynolds, 2000). Alongside these developments in school effectiveness research, school improvement research has emphasized the importance of attending to the improvement and change management processes involved in supporting actual improvements in schools to take place and to sustain. Reynolds and Stoll (1996), for example, suggest that the importance of emphasizing within-school processes for improvement with a focus on teachers and a valuing of practitioners' knowledge. Taken together school effectiveness and improvement research has placed increased emphasis on teaching and teacher effectiveness with attention to the details of teaching practices and to professional learning to develop such practices.

Teacher quality and teaching

Based on analysis of the Programme for International Student Assessments (PISA) results, the Organisation for Economic Co-operation and Development (OECD, 2010) concluded that: "The quality of an education system cannot exceed the quality of its teachers" (p. 4). Although this statement and its policy and practice implications are subject to debate (Hargreaves & Fullan, 2012), there is growing attention to how to improve teacher quality. Darling-Hammond and Rothman (2011, p. 1) explain:

> The focus on teacher effectiveness makes sense. While there might be disagreement about the most effective ways to measure and develop effectiveness, educators and policymakers generally agree that ensuring that teachers are capable of improving student learning – and that school leaders are able to help them to do so – is perhaps the most significant step they can take to raise student achievement. This conviction is backed up by research. The evidence is clear that teaching is one of the most important school-level factors in student achievement, and that improving teacher effectiveness can raise overall student achievement levels.

Of course, not all teaching practices are equally effective and not all attempts to develop teachers' professional learning have positive impacts; nevertheless, evidence indicates the importance of teacher quality and developing teachers' professional learning, leadership and practice.

In studies of approaches to teacher quality in high-performing nations/states, including Ontario (Darling-Hammond & Rothman, 2011), and cities, including Toronto in Ontario (Darling-Hammond et al., 2013), the importance of attention to "the recruitment of qualified individuals into the profession, their preparation, their induction, their professional development, their evaluation and career development, and their retention over time" (Darling-Hammond et al., 2013, p. 7) is identified. Darling-Hammond and Rothman's (2011) study of high-performing education systems' approaches to teacher effectiveness identifies the importance of investing in continuous learning by supporting "ongoing professional development, learning opportunities and collaboration time" (p. 7). Our focus in this article is particularly on the professional and career development of experienced teachers.

Teachers' professional learning and leadership

Historically, we have known a lot about the craft of learning by teachers as they work alone with their students (Lortie, 1975). Important research has shown how teachers develop pedagogical knowledge as well as the conditions and contexts that support this development (Cochran-Smith & Lytle, 1993; Fullan & Hargreaves, 1996). Research has also indicated the importance of shared, collaborative professional learning, for example the concept of professional learning communities has become widespread (Stoll, Bolam, McMahon, Wallace, & Thomas, 2006). Timperley's (2008, p. 8-24) meta-analyses of research about effective professional learning for teachers identifies the importance of: integrating evidence of effective practices with context-specific approaches; combining both theory and practice; including

attention to students' learning and to teachers' professional learning needs; focusing on learning processes including collaborative professional learning and multiple opportunities for teachers to work and learn together to apply and develop knowledge, as well as drawing on external expertise when needed. Therefore, sustained teacher learning includes attention to learning from teachers' own work, knowledge and practices. Indeed, such "learning from practice" (Lieberman & Friedrich, 2010, p. 90) is central to not only developing instructional practices, but also teachers' leadership practices.

The concept and practice of teacher leadership is gaining in prominence (Lieberman, 2010), yet the definition of teacher leadership remains contested. In her review of the literature, Harris (2005, p. 206) comments:

> In summary, there are a number of important things to highlight about the definition of teacher leadership. Firstly, teacher leadership is associated with creation of *collegial norms* among teachers that evidence has shown can contribute to school effectiveness, improvement and development. Second, teacher leadership equates with giving teachers *opportunities to lead,* which research shows has a positive influence upon the quality of relationships and teaching within the school. Third, at its most practical level, teacher leadership means teachers *working as instructional leaders* influencing curriculum, teaching and learning. Finally, teacher leadership is associated with *re-culturing schools*, where leadership is the outcome of the dynamics of interpersonal relationships rather than just individual actions.

Teacher leadership has been considered as a form of distributed leadership with organizational responsibilities delegated by the principal (Leithwood et al., 2007), as a form of instructional leadership (Robinson, 2010) with a focus on being an expert teacher or leader who supports teachers to be effective in their instructional practices, as having potential for transformational leadership to reform schools, and/or as offering an approach which enables teachers to lead their own learning, their students' learning and the learning of other teachers and colleagues (Harris, 2005).

Several benefits of teacher leadership have been identified. Most importantly, there are benefits for teachers: "The most discernible and powerful effect of teacher leadership is on teacher leaders themselves" (Harris, 2005, p. 206). Benefits include gaining knowledge (O'Connor & Boles, 1992) and improving practice (Smylie, 1994), development of leadership skills and practices (Ryan, 1999), and improvements in self-esteem, attitude, motivation and work satisfaction (Katzenmey & Moller, 2001; Lieberman, Saxl, & Miles, 2000; Ovando, 1996). Teacher leaders who collaborate, share and support improvements with other teachers can benefit the professional learning of colleagues (Hargreaves & Fullan 2012). For example, in their research, Lieberman and Friedrich (2010, p. 95) "learned that teacher leadership reflects several core principles that are exemplified in their work", including "working 'alongside' teachers and leading collaboratively" and "opening the classroom door and going public with teaching". Teacher leaders are expected to support learning through professional networks and contribute to school improvement (Hargreaves & Fullan, 2012; Little, 1990, 2000; Rosenholz, 1989). Ultimately, such improvements in teachers' learning, particularly if focused on instructional practices, are anticipated to also support students' learning (Harris, 2005).

In summary, building effective schools and improving education systems requires the development of teachers and teaching practices. A focus on teachers' professional learning and teachers' leading the learning of other teachers for classroom, school and system improvements are central to our research on the TLLP, which we discuss below.

Research study

During 2012, OTF commissioned us to conduct research on the TLLP (Campbell, Lieberman, & Yashkina, 2013). Our overarching research questions were:

1. What is the value of the TLLP for teachers?
2. To what extent have the overall goals of the TLLP been realized?
3. What lessons can be learned so far?

This article discusses key findings from this research (Campbell et al., 2013) related to teachers' learning, leadership and knowledge exchange and develops new consideration of the implications for approaches to school and system improvement.

Methods

Our research design involved mixed methods: review of policy documents; observation and review of materials from TLLP training events; analysis of TLLP Final Reports; and interviews with teacher leaders and provincial participants in the TLLP.

Policy documents

A scan was conducted of policy and professional materials associated with the launch and delivery of the TLLP initiative, including descriptions of the TLLP initiative and guidance resources. The purpose of this documentary review was to identify how the TLLP has been described and developed as a policy initiative by the Ministry and OTF.

TLLP provincial events

At the launch of each TLLP cohort, a professional learning event—*Leadership Skills for Classroom Teachers*—is held for all teachers receiving TLLP funding for the coming year. Subsequently, a culminating event—the *TLLP Sharing the Learning Summit*—is held for each TLLP cohort at the end of their funding. The research team attended the May 2012 Leadership Skills for Classroom Teachers and the November 2012 Sharing the Learning Summit to observe the professional learning opportunities, exchanges and resources available for participating teachers. In addition, we reviewed the agenda and materials for all previous events in 2007-2011 (see Campbell et al., 2013, pp. 8-9). Descriptive analysis of the responses to evaluation and feedback forms for each event to calculate number, frequency, percentage and ranking of responses was conducted.

TLLP final reports

All TLLP projects must submit a TLLP Teacher Participant Final Report Form to the Ministry. This Final Report involves a standard template format designed by the Ministry plus additional supporting evidence from TLLP projects. We conducted an overview descriptive analysis of all TLLP Final Reports from the first four cohorts (2007-2011), involving a total of 302 projects. Using the format of the Final Report template, our descriptive analysis involved count of the number of projects and calculations of frequency, total, mean and median for categories including budget, project team size, report length and topic of project. In addition, in consultation with OTF and the Ministry, we developed a purposive sample of 20% (60 projects) of the Final Reports for more in-depth analysis of the projects undertaken and the reported successes, challenges and overall impacts. The sampling criteria included: representative distribution across governance systems (English Public, English Catholic, French Public, French Catholic, School Authorities); elementary and secondary schools; geographical distribution; range in project size (both size of team and project budget); range of project topics; and variations in length of final reports submitted. Using categories from the Final Report standard template and developing new categories and codes emerging from our analysis of the content of the 60 sample Final Reports, a detailed coding structure was developed to categorize, count and analyze all 60 Reports in relation to our overall research questions and connected to the goals of TLLP.

Participant interviews

We developed a purposive sample of TLLP teacher leaders from each cohort as potential interview participants. Sampling criteria were designed to cover the diversity of TLLP projects, including teachers from each of the four TLLP cohorts and projects being conducted by a single teacher, groups of teachers within one school, across more than one school, and/or including school district members. Our sample design also included attention to a range of project foci, specifically sampling for topics included projects focused: instruction and student achievement; innovation in new teaching and learning practices; equity; and/or teachers' professional learning and leadership (see Campbell et al., 2013, p. 10). Nine TLLP teacher leaders agreed to be interviewed. An interview schedule was developed and used for all

participants. In recognition of time demands and teachers' schedules, the teachers were given the choice of whether to respond to our interview questions in writing or in conversation through an interview. Five responded in writing through the survey and four participated in an interview. In addition, separate interviews were conducted with provincial level TLLP participants. Two members of the OTF provincial TLLP team were interviewed together. Three members of the Ministry provincial TLLP team were interviewed as a group. All interviews were digitally recorded and fully transcribed. The interview transcripts and the written responses from teacher and provincial respondents were analyzed for themes connected to the research questions and through development of a constant comparative method to identify emerging themes.

Context: The education system and teachers in Ontario, Canada

Within Canada, education is a provincial level responsibility. The Ontario Ministry of Education is responsible for the province's education system, which encompasses 2.1 million students and over 120,000 teachers in almost 5,000 schools administered through 72 district school boards. As part of a new government strategy from 2003 onwards (Fullan, 2010), the Ministry is focused on three priority goals for: improving student achievement; reducing gaps in performance; and increasing public confidence in publicly funded education. Targets for improvements in literacy and numeracy results and in high school graduation have been set, with considerable improvements being achieved: the combined literacy and numeracy results for students achieving the provincial standard or above have increased from 54% of students in 2003 to 70% in 2012; the high school graduation rate has increased from 68% in 2003-2004 to 83% in 2011-2012.

Central components of the Ontario education strategies are building professional partnerships with teachers, developing teachers' knowledge, skills and practices and supporting career progression from pre-service through to teaching and leadership careers (Pervin & Campbell, 2011). An early initiative of the newly elected government was the establishment of a Working Table on Teacher Development in 2005, which involved a strong partnership between the government and the teachers unions through the OTF and its affiliates. The Working Table (2007) turned their attention to experienced teachers with the recommendation:

> That the government develop with education partners a structure which enhances opportunities for teachers to expand their knowledge and skill, and share exemplary practice with other teachers. Ontario has many fine teachers whose choice of career is in the classroom and who have expertise to offer to other teachers, boards and regions. They are a valuable resource that must be encouraged, developed and utilized to enhance the educational experience of our students. A structure is needed that would facilitate opportunities for teachers to extend their learning and share their expertise for the broader benefit of Ontario's students. (p. 6).

The result was the development of the TLLP.

Findings

The Teacher Learning and Leadership Program

Launched in 2007:
The Teacher Learning and Leadership Program (TLLP) is a project-based activity for selected experienced teachers whose choice of career is the classroom. It is intended to create opportunities for experienced teachers to enhance their professionalism and skills, extend their learning and share their expertise with others for the broader benefit of Ontario's students. Teachers can apply, as individuals or as a group, to undertake a project. (Ontario Ministry of Education, n.d., p. 3).

Three goals for the TLLP have been collaboratively developed by OTF and the Ministry:
(a) To support experienced teachers who undertake self-directed advanced professional development related to improved student learning and development.
(b) To help classroom teachers develop leadership skills for sharing learning and exemplary practices on a board-wide and/or provincial basis.
(c) To facilitate knowledge exchange to spread the use and sustainability of innovative and effective practices.

From 2007 to 2013, there have been seven cohorts of the TLLP involving over 600 projects.

The process for participating in a TLLP project begins with a teacher submitting a TLLP proposal to their school district TLLP committee, which selects up to two TLLP applications to forward to a provincial TLLP committee, with joint teacher union and government membership, who decide which proposal to approve and fund. Successful TLLP applicants attend the *Leadership Skills for Classroom Teachers* in the May prior to the school year in which their TLLP project will be conducted. They then undertake their TLLP project over a school year. The following school year, the TLLP participants attend a provincial *Sharing the Learning Summit* in November to showcase their project and share their learning. TLLP participants are strongly encouraged to continue to share and spread their learning beyond the initial project funding.

Overview of TLLP projects

A total of 302 projects were conducted during the first four TLLP Cohorts (2007 – 2011) involving 1256 teachers in the core TLLP teams. The majority of projects (210 out of 302) involved 2 to 4 people in the TLLP team; although 53 projects were by a single teacher, whereas 10 projects involved over 10 people. The average budget for a TLLP project is just under $14,000 (CDN). TLLP projects involve a wide variety of topics with most projects combining several main themes. The most prevalent project topic themes were differentiated instruction, literacy, technology and professional learning communities (see Table 1).

Table 1:
TLLP project themes (rank order)

Theme	Cohort 1	Cohort 2	Cohort 3	Cohort 4	Total
Differentiated Instruction	26	17	34	33	110
Literacy	38	22	21	15	96
Technology	22	19	29	23	93
Professional learning community	27	25	20	16	88
Student assessment	18	14	20	13	65
Math literacy	11	15	11	14	51
Students with special needs	10	9	9	7	35
Student success/ transition years	5	6	13	10	34
Gender-basedlearning	4	5	5	7	21
French (core & immersion)	3	7	5	2	17
Media literacy	4	5	2	5	16
The arts	1	5	6	6	12

Note: Source: Campbell et al. (2013), p. 21.

Each TLLP project involves several goals. As indicated in Table 2, the main goals reported were to improve understanding and knowledge and to develop strategies and skills. These areas included goals for improving teaching and learning and also to improve professional learning and teacher leadership. Goals for developing resources included purchasing or creating resources for professional training sessions, for parental use, and/or use within classrooms. This connects to the goals for new learning tools, which includes use of technology. Although developing professional learning communities or networking or collaboration was only an explicitly stated goal of 10 projects, in practice this goal was advanced within a larger number of projects. Examples of goals for collaboration included professionals working together to develop assessment strategies, to improve instruction and learning, and to support transitions from elementary to secondary schools. Finally, nine projects included a goal to establish community relationships, for example connecting with aboriginal communities and supporting parents.

Table 2
Sample projects: Stated project goals

Project goals	Number of projects
Improve understanding/knowledge	46
Develop strategies	36
Develop/improve skills	29
Develop resources	22
Develop a new learning tool	15
Develop professional learning community/networking/collaboration	10
Establish relationship with community	9

Note: Source: Campbell et al. (2013), p. 23.

Teachers' learning

The TLLP *Program Guidelines* state:

Teacher professional learning
This component of the TLLP will foster teacher learning and facilitate knowledge production by funding proposals from teachers for innovative, self-chosen learning activities that they undertake individually or as part of a community of practice. The proposals will occur in the context of ministry/board/school goals to enhance student learning. (Ontario Ministry of Education, n.d., p. 3)

Our interviewees were universally enthusiastic about the TLLP and the professional learning experience. Five main features for teachers' learning were identified in our interview analysis:

- the importance of teacher-led, self-directed learning;
- emphasis on professional learning by, with and for experienced teachers;
- focus on teachers' own professional learning;
- empowering nature of teachers' making their practice public through sharing; and
- collaborative opportunity for shared learning.

The teacher-led, self-directed nature of the professional development was considered to be unique and vital:

The fact that the program itself seemed to be designed to empower… instead of the teachers being told what to do… this project empowered me and my team to drive what we were doing; we had control of it. I think that was huge… In the 21st century, professional development needs to be customized and driven by the people who want to learn… rather than sitting in a room and being directed to or being instructed at. So, I think that this program was able to customize our leadership, customize our learning as we went along (TLLP teacher leader, elementary school).

This was considered to be particularly important for experienced teachers looking for new ways of developing their professional learning:

> I was at a point in my career where I was looking for something where I could have some autonomy or independence… the experience… was such a hugely positive experience… we found it… to be quite life changing… it was the best PD [professional development] we'd ever had. Nothing comes close to that, and it has continued after the end of the project… (TLLP teacher leader, secondary school).

The experience of leading a project that involved focusing on teacher learning as well as student learning involved considerable professional development for TLLP teacher leaders:

> But participating in TLLP, having to write the proposal, I think shifted my perception or my understanding or my view even of what professional development is... the biggest shift that I would not have engaged in thinking about are issues related to teacher learning–other teachers' learning… (TLLP teacher leader, elementary teacher, now working in school board office).

The opportunity for teacher collaborative learning contributed to new ways of working together that could be empowering through increasing teacher voice and transparency of practice:

> I think it was very empowering for them (TLLP teacher team members), and I think that they started having more confidence… part of the TLLP was to teach people how to network and how to be transparent; how to add what they're doing in a more public sense, instead of just hiding behind their classroom walls and doing their stuff… (TLLP teacher leader, elementary school).

Part of the professional learning has been increasing professional dialogue to change practice:

> This form of professional development encouraged rich professional conversations and greater understanding of formative assessment in Kindergarten. I built lasting professional friendships, got increased confidence, co-created an assessment booklet and planned multiple sessions for teachers and administrators… We built a real learning community. (TLLP teacher leader, elementary school).

The main themes of teacher learning benefits in our analysis of Final Reports are outlined in Table 3. The top benefit identified was new knowledge and improved understanding about specific strategies, programs or practices which could contribute to classroom and school improvements. For example, a project concerning kindergarten coaching indicated: "The teachers have increased their capacity to program more effectively to meet individual student strengths, needs, interests, and abilities."

Benefits for improved instructional practice were identified, for example a project on literacy reported: "We have strengthened our skills and knowledge in using a collaborative process to analyze student work samples for purpose of improving instruction, also learned how to act as peer mentors…"
There were also benefits in the development of technology skills in the context of improving teaching practice. For example, in a project concerning boys' literacy:

> The project changed our teaching practice because the focus on language gave us the opportunity to integrate technology into our literacy lessons. We created Smart Notebook interactive lessons where students were able to use the technology to improve reading and writing... The technology allowed us to make modeled, shared and independent reading more interactive, therefore engaging all of the students. (TLLP teacher leader, elementary school).

Enhanced professional confidence, sense of self-efficacy and leadership skills were also important benefits.

Table 3
Teacher learning benefits identified in sample of final reports (in rank order)

Benefit	Rank order
New knowledge/improved understanding	1st
Improved instructional practice	2nd
Improved technology skills	3rd
Increased self-efficacy	4th
Improved leadership skills	5th
Greater energy/inspiration	6th
Improved assessment skills	7th
Improved collaboration/communication	8th =
Improved project management skills	8th=
Improved facilitation and presentation skills	8th=
Improved research skills	11th

Note: Source: Campbell et al. (2013), p. 36.

Nevertheless, monitoring and measuring changes in teachers' learning was challenging for the TLLP projects. Only 28 out of 60 of the sample Final Reports included formal feedback measures; for example, surveys, interviews and/or observations. Twenty-five of the projects used more informal feedback mechanisms, such as more general conversations or observations with teachers or students. Seventeen of the projects relied mainly on self-reflection and self-monitoring strategies. There is a need to further develop the capacity of TLLP leaders to monitor professional learning benefits, changes and outcomes.

Teachers' leadership

The second goal of TLLP is teacher leadership. The TLLP *Program Guidelines* propose:

Teacher Leadership
This component of the TLLP will foster teacher leadership by providing all participants in the program with a Leadership Skills for Classroom Teachers professional development session that will help them develop the skills needed to effectively manage their project and share their learning with colleagues. The participants will then apply these leadership skills as they share their expertise of exemplary practices with colleagues. (Ontario Ministry of Education, n.d., p. 3).

Five main benefits of the TLLP for supporting teacher leadership were identified in our research:

• Development of teacher leadership grounded in authentic expertise;
• Opportunity for teacher leaders to influence school and system improvements;
• Recognition as a teacher leader by peers;
• Development of leadership skills, experiences and roles; and
• Support and respect as a teacher leader from the government and teachers' unions.

One of the aims for developing teacher leadership is to increase the recognition and influence of expert teachers who are doing excellent things in their classrooms and with the potential to share learning and improvements in practices with other teachers. An interviewee commented:

…the teachers had been really given wings, or have found their wings. That's the leadership, when they become recognized as leaders in areas of teaching… they become experts in teaching–they're teacher experts. That's what a teacher leader is, they're recognized in their schools, by their peers, and then in other schools, and in other boards, and by companies and

by other jurisdictions, as being leaders from the point of view that they are the experts in their area, and their area is, "How do you really teach numeracy? What really makes the difference?" "Guess what? I tried this, and this part didn't work and this part worked fantastically well. I'm going to show you how you can do the same miraculous thing in your class." That's what we think teacher leadership really is... (Member of OTF provincial TLLP team).

This involves being looked to for your expertise and also being able to initiate and spread improvement. Another interviewee commented:

There was a young teacher that I thought, it was so simple but so great that it was a new teaching strategy, she was the only one in the school that was using it, she did a lot of work on it and part of her display was, she was the only one using it at the beginning of the year, everybody on staff tried it, and after it was over, everybody except I think two people, were continuing to use it. That is real leadership. (Member of OTF provincial TLLP team).

The theme of teacher leadership was very strong in our interviews with TLLP teachers. As one interviewee commented, the "*depth of leadership learning was phenomenal*". This included specific leadership skills: "TLLP allowed me to develop professionally. I learned leadership skills like: team building; developing trust; collaborating with others; presentation skills; co-teaching; debriefing, reflecting. I learned and lived the experience of organizing collaboration."

The opportunity for teachers to become leaders was considered a major benefit of the TLLP:

Teacher Leadership is the area that benefits most in TLLP. Great teachers who might otherwise never have a chance to share their tremendous work get to take on a macro-level leadership role. This is grass roots leadership at its finest… This has been some of the best and most rewarding work in my career. (TLLP teacher leader, secondary school).

TLLP teachers spoke of not holding formal leadership roles or previously considering themselves as leaders and now being motivated, recognized and inspired as leaders:

Professionally, I don't have a leadership position within my school community. I'm not a chairperson, I'm not a vice principal; I'm a teacher. I felt that it was a way for me to become a specialist in a particular area in a short period of time… It was rewarding, enriching, inspiring, invigorating, captivating, so that the three of us on the core team would just sort of feed off one another and just dream big thoughts that normally we would never have the time to do, nor be offered the opportunity. (TLLP teacher leader, secondary school).

Interviewees indicated that the experience of leading a project, of developing and sharing their expertise, of presenting within their school and community, of dealing with change processes, interpersonal dynamics and both the strategic and detailed development of improving practices contributed to their improved confidence and strength as leaders. Many of the TLLP teacher leaders were already informal leaders. They are self-starters who seek out and develop new opportunities and build relationships. While they may have further developed their leadership without the support of the program, the TLLP enabled them to develop their leadership significantly and provided an infrastructure of resources and support, and a culture of recognition, collaboration and professional respect.

Our research would suggest that alongside developing as 'instructional leaders' (Robinson, 2010) with expertise in particular teaching practices, the TLLP teachers' leadership skills gained through leading projects developed as transformational leadership to influence, share and spread changes in practices with other teachers and at school and system levels. We turn to this aspect of sharing and spreading practice through knowledge exchange next.

Knowledge exchange

The third goal of the TLLP is knowledge exchange. The TLLP *Program Guidelines* explain:

Sharing of exemplary practices
This component of the TLLP will facilitate sharing opportunities for experienced teachers that will provide benefits for Ontario students. Within the context of their project, participants will be required to share their learning and promising practices with others on an intra-board/inter-board and/or provincial basis. (Ontario Ministry of Education, n.d., p.3)

TLLP projects share learning and practices within their own school(s) and with other schools. Our interviewees spoke of examples within their schools, such as sharing of practices among school members, speaking at staff meetings, working collaboratively with teachers and initiating school-wide activities. TLLP projects also spread their learning and practices to other schools. Forty-five of the 60 sample Final Reports reported sharing within and across school district level, including examples such as a math initiative or use of new learning technologies where the practices were taken up and implemented as a district-wide initiative. As indicated in Table 4, the majority of methods of sharing focused on professional learning, development and collaboration. There were also approaches to sharing learning and knowledge exchange with a larger community, including at provincial, national and international levels, for example through communicating about the projects. Our TLLP teacher interviewees provided a range of examples of extended sharing, including presenting at conferences, making resources and materials available online or through professional networks, TLLP leaders being appointed to provincial or national/international bodies, use of blogging, and TLLP practices being picked up and used by the Ministry within Ontario or other education bodies. There were inspiring examples of reaching out to, and connecting with, a wider global education community:

> I mean, it's humbling to say (the project website)… alone has reached a cycle of counting hits… I mean, I think it's at like 12,000-13,000; but that's not including the amount of conferences that we've presented at across the world and the kinds of emails, blog posts, the comments from people… the blog alone and the content of the blog has been reached by educators from all over the world. So it's incredible… we extended the project beyond the school or the classroom and we're very transparent in presenting, using tools like Twitter and Facebook and that kind of thing as well… It totally was by strategy… And so I think that it was more that you just encouraged other people and saying, "Your voice matters, and that's amazing; what you have to say matters," because people don't think it matters. Teachers are doing amazing things and think nobody cares or that nobody wants to hear about it, (TLLP teacher leader, elementary school).

Table 4
Methods of sharing learning and practices identified in sample final reports

Method of sharing	Number of final reports	Percentage of final reports
Workshops and professional development sessions	28	47%
Professional learning community activities	28	47%
Staff meetings	21	35%
Websites	20	33%
Modeling	5	8%
Community events	5	8%
Newsletters	3	5%
Media	2	3%
Mentoring/tutoring	2	3%
Publication	1	2%

Note: Source: Campbell et al. (2013), p. 42.

An important method for sharing learning is through the development of resources (see Table 5). The creation of instructional resources supported changing practices. For example, one TLLP project developed an assessment tool for use with children who have severe speech and physical impairments and this tool is being adopted by teachers across the school. In another project, a graphic novel was written and published to engage students in learning. And some of the resources not only provide specific materials to be used in classrooms, they also facilitate sharing of professional learning among teachers, for example resource lists.

Table 5
Resource materials developed and shared by TLLP projects (as identified in sample of final reports)

Resource material developed and shared by TLLP project	Rank order (based on number of projects including in final report)
Sample lessons/lesson plans	1st
Providing list/advice on recommended resources	2nd
Communication tools (e. g. blogs, websites)	3rd
Assessment tools and methods	4th
Instructional materials for use in classrooms	5th=
Tutorials	5th=
Development of framework/program materials	5th=
Research tools	8th
Book	9th

Note: Source: Campbell et al. (2013), p. 44.

It is challenging to measure the impact of knowledge exchange and sharing learning, particularly beyond the immediate TLLP project team and their school(s). In our analysis of sample Final Reports, 12 of the projects had sought to include formal measurements of the impact of sharing learning; for example, use of teacher surveys, feedback or evaluation forms. More frequently, TLLP projects relied on informal assessments; for example from observations, conversations, correspondence or website hits. There is a need to further consider how the wider sharing of learning can be monitored.

Nevertheless, even with limitations to measuring wider learning, it is evident that learning was occurring and having benefits. As outlined in Table 6, our analysis of the sample of Final Reports identified the main benefits of sharing learning from the TLLP project were first, development of new knowledge and understanding, and second, changes in practice. These benefits support the importance of sharing of learning beyond immediate TLLP project teams.

Table 6
Benefits of shared learning (for people beyond TLLP project team) identified in sample of final reports

Benefits of shared learning for people beyond TLLP team	Identified in % of sample reports
New knowledge/improved understanding	70%
Changes in practice	58%
Increased self-efficacy	17%
Inspired by the TLLP projects/practices	17%
Development of shared leadership	7%

Note: Source: Campbell et al. (2013), p. 45.

While the TLLP is primarily focused on *teachers'* learning and leadership, the intended improvements in professional knowledge, skills and practice are also anticipated to benefit student learning. The majority of projects identified benefits for students' improved learning and skills connected to the project foci, for example literacy or math, and also benefits for student engagement by being involved in innovative projects. Of the 60 projects in our sample of Final Reports, 14 specified improvements in academic achievement. However, it is important to remain cautious about attempting to directly link TLLP innovations to student achievement benefits given the complexity of processes and outcomes involved with changing instructional practices to benefit student learning.

Challenges encountered by TLLP teacher leaders

Nevertheless, challenges were encountered by TLLP projects. Four main types of challenge were identified:

1. Time and workload
2. Managing dynamics of the TLLP project team
3. Gaining commitment and overcoming resistance from others potentially involved in project
4. Practical, technological, financial and logistical challenges of project delivery

The time commitment required for leading a TLLP project was the most often cited challenge, for example: time to prepare, to meet together, to manage the project, to develop resources, to deliver professional learning and challenges of time and budget management. For full-time teachers, taking on a TLLP project involves additional workload. Although not fully overcoming time concerns, TLLP teacher leaders found ways to address time concerns, including using personal time and trying to be more effective in time and resource management. TLLP teacher leaders reached out to other teachers and administrators for support. An effective strategy was, as the TLLP developed, to integrate this with classroom or school processes, such as professional learning community activities, rather than the TLLP work being an 'add on'.

A second significant challenge–as well as area of leadership growth–was managing the dynamics of the TLLP team. While core team members had all signed up to being part of the TLLP, individual commitments, availability, expertise, team working styles and expectations varied considerably. Conflict within the group could result. Strategies included paying explicit attention to defining leadership responsibilities and roles within the team and to adult learning and collaboration styles to support a functional team.

The third main challenge was gaining commitment and overcoming resistance from the wider group of people to be engaged by the TLLP project, including school and district administrators, teachers, students, parents or community members. TLLP projects promote innovation and sharing of learning; this can be threatening or risky for people who are used to their existing practices and routines. Part of the TLLP learning is how teacher leaders build relationships, navigate systems and manage change. Strategies used to overcome resistance included: connecting with the people to be involved and understanding their needs and interests; taking the time to listen and communicate effectively; focusing on people who could support changes; attending to ways to engage people and make activities attractive; and aligning with other activities when appropriate.

Finally, there were practical, financial and logistical challenges indicating the importance of project management training within the TLLP. For some TLLP teacher leaders, organizing meetings, managing a project, establishing and overseeing a budget, and developing communications were all new and challenging activities. But they were also learning and leadership experiences which they developed through the TLLP.

Discussion

Our research investigated the value of the TLLP. We conclude that the TLLP is professionally valuable as it supports teachers' learning and leadership, and educationally valuable as it generates improvements in teaching practices and supports the sharing and spread of those practices (Campbell et al., 2013). Through such sharing of learning and professional practice, teacher-led professional learning with a focus on changing instruction can contribute to classroom, school and system level improvements.

It is important to note that the TLLP is also part of a wider system of professional development and educational improvement in Ontario. TLLP teachers are supported by the OTF and Ministry: teachers receive project funding, they receive training prior to their TLLP projects, they receive ongoing networking across the TLLP community (online and in person) and access to advice from OTF, Ministry and other TLLP participants, they are facilitated to showcase their work following their projects, and they are encouraged to continue sharing practices over the longer-term. Of particular importance, the TLLP is firmly rooted in a culture of partnership, trust and respect among and between the OTF, government and teachers involved.

The TLLP is not the only vehicle for teachers' professional development; as Darling-Hammond and Rothman (2011) propose about effective approaches to improving teacher quality, the TLLP is part of a larger system of new teacher training, induction, professional development on specific strategies and practices, and opportunities for career development (Pervin & Campbell, 2011). What is unique is that the TLLP is focused on experienced teachers; it recognizes their work as classroom teachers and provides a powerful opportunity to expand their impact beyond their individual classroom and school. The TLLP embodies the features identified as effective professional learning in previous research (Timperley, 2008) and the potential for experienced teachers to lead the profession forward as urged in recent debates (Hargreaves & Fullan, 2012). By strengthening their expertise and practices, TLLP leaders develop as instructional leaders. However, the TLLP asks more–not just to be an expert teacher, but to be a leader of the professional learning of other teachers. This focus on *teachers'* learning was new for many of the TLLP teachers. And the expectation to lead projects and share learning for knowledge exchange across schools, districts and the province resulted in the development of new empowering teacher *leadership* skills, experiences and roles. The TLLP is not about individual teachers experimenting in isolation; it is about developing and sharing networks of learning to improve practice across a system. Teachers leading learning: their own learning, professional learning, student learning and system learning.

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