

The title 'RESEARCH REPORT' is centered within a large, dark blue diamond shape. 'RESEARCH' is in dark blue and 'REPORT' is in teal. The background of the cover features a faded image of three people in a meeting, with teal and dark blue geometric shapes overlaid.

RESEARCH REPORT

Teacher Learning &
Leadership Program

2017-2018

Carol Campbell, Ann Lieberman and
Anna Yashkina with Sharon Alexander
and Joelle Rodway



TABLE OF CONTENTS

1.	Introduction.....	1
2.	Research and Methods.....	1
2.1	Research questions.....	2
2.2	Research methods.....	3
3.	Origins and establishment of the Teacher Learning and Leadership Program (TLLP)	3
4.	Implementation and development of TLLP	7
5.	Findings about the impacts of TLLP projects.....	8
5.1	What are the impacts of TLLP projects for teachers’ professional learning?	9
5.1.1	Teacher voice.....	9
5.1.2	Ongoing job-embedded learning.....	10
5.1.3	Evidence-informed learning	10
5.1.4	Collaborative learning	11
5.1.5	Necessary supports	12
5.2	What are the impacts of TLLP projects for teachers’ knowledge, skills and practices?....	13
5.3	What are the impacts of TLLP projects for teachers’ leadership skills and experiences?.....	15
5.3.1	Learning leadership by doing leadership	15
5.3.2	Growth in confidence in leadership and improvement in leadership skills	16
5.4	What are the impacts of TLLP projects for other adults affected by the TLLP projects?..	17
5.4.1	Other educators	18
5.4.2	Parents and families	18
5.4.3	Local communities.....	18
5.5	What are the impacts of TLLP projects for student engagement and learning?	18
5.5.1	Student engagement and attitude	19
5.5.2	Student learning and achievement	19
5.5.3	Student voice and leadership	20
5.6	Summary	20
6.	Findings about sharing of learning from TLLP projects	20
6.1	How is learning being shared beyond the TLLP project team and what approaches to learning are being used?	21
6.1.1	Audience for sharing	21
6.1.2	Level of sharing.....	21
6.1.3	Approaches to sharing within and across the TLLP community	21
6.1.4	Approaches to sharing with a wider professional and/or public community.....	22
6.2	How does the sharing of learning affect participants?.....	23
6.2.1	De-privatization of practices.....	24
6.2.2	Culture of collaboration within and across schools.....	26
6.2.3	Board-wide sharing of learning and changes in board policy or practice.....	27
6.3	What approaches appear to support the spread of knowledge and changes in practice, implementation and sustainability of improvements in practice? What successes can be identified?.....	28
6.3.1	The TLLP infrastructure.....	28
6.3.2	Professional learning collaboration and sharing of resources.....	29

6.4	What challenges are encountered? And how can they be mitigated?	31
6.4.1	Time.....	31
6.4.2	Communication, ownership and relationships.....	31
6.4.3	Mitigating challenges.....	32
6.5	What is unique about the TLLP approach for knowledge exchange and sharing of successful practices?.....	33
6.5.1	A government, teacher federation and teacher partnership	33
6.5.2	Provincial funding, training and supports for teacher-led innovations	33
6.5.3	Of, by and for experienced teachers.....	34
6.5.4	Focused on teachers leading teachers' collaborative professional learning	35
6.6	Summary	35
7.	What longer-term impacts of participating in TLLP projects can be identified?	36
7.1	Sustainability of TLLP project learning and practices	36
7.2	Growth and influence of the TLLP alumni	36
7.3	Provincial Knowledge Exchange (PKE).....	38
7.4	Norway-Canada (NORCAN) partnership.....	40
7.5	Impact of the TLLP way of working	41
7.6	Summary	43
8.	Conclusions	43
8.1	Impact of TLLP for teachers, other adults and students involved	44
8.2	How learning is being shared beyond the TLLP team.....	44
8.3	The longer-term impacts of participating in a TLLP project.....	45
9.	Ten essential lessons from and for the TLLP.....	45
	References.....	47
	Appendix A: Research questions and methods	50

ACKNOWLEDGEMENTS

We wish to acknowledge and thank the Ontario Ministry of Education and Ontario Teachers' Federation for funding, supporting and contributing to two research studies of the Teacher Learning and Leadership Program (TLLP) – an initial study in 2012-13, followed by the recent five-year longitudinal research study during 2013-18. Developing from the TLLP research, we are grateful to have also received funding from the Ontario Ministry of Education and Ontario Teachers' Federation to conduct a case study of Television Ontario's (TVO) *TeachOntario*. During the course of conducting this research, we are deeply grateful to all of those who gave their time and insights to contribute to this research.

The TLLP research was co-led by Carol Campbell, Ann Lieberman and Anna Yashkina. During the conduct of this research, we benefited from research assistance by:

Sharon Alexander (2015-16, 2016-17, 2017-18);
 Nathalie Carrier (2013-14);
 Cameron Hauseman (2014-15);
 Sofya Malik (2013-14, 2015-16);
 Joelle Rodway (2015-16, 2016-17, 2017-18); and
 Jacqueline Sohn (2013-14).

In addition, Margaret Brennan provided transcription services throughout the research studies. We wish to thank all members of the TLLP research team for their contributions.

1. Introduction

Launched in 2007, the Teacher Learning and Leadership Program (TLLP) is a joint initiative, developed in partnership between the Ontario Teachers' Federation (OTF) and the Ontario Ministry of Education (Ministry) with shared goals to:

- support experienced teachers to undertake self-directed advanced professional development;

- develop teachers' leadership skills for sharing their professional learning and exemplary practices; and
- facilitate knowledge exchange for spread and sustainability of effective and innovative practices.

In 2012, we were invited to conduct a research study about the value of the TLLP for teachers, what we could learn about professional development organized in the TLLP way, to what extent the three overarching goals of the TLLP were being realized, and what lessons could be learned so far. More broadly, we began our research of the TLLP by considering:



If experienced teachers were supported to be leaders of learning – their own learning, the professional learning of other teachers, and their students' learning – what would these teacher leaders do and what would be the challenges and benefits? (Campbell, Lieberman & Yashkina, 2013, p. 1).

Following seven months of research, we concluded from that study:

The evidence is clear: these teacher leaders will do amazing things; they will initiate, innovate, implement and share a wide range of projects which can develop collaborative professional learning, improve practice and support student learning; they will experience success in tangible outcomes – such as changes in professional practice for instruction and assessment - and also importantly in the sometimes immeasurable benefits of being empowered, enabled and valued; they will navigate personal, interpersonal and practical challenges as their leadership is tested and grows; they will learn how to collaborate and share to spread knowledge of student learning and sustain improvements in practices; and they will



demonstrate the professional, educational and financial value of self-directed, teacher-led innovative and effective practices. We are struck by how the values of respectful relationships, partnership and collaboration underpin all aspects of the TLLP and how the work at all levels (teachers, projects, OTF and Ministry) demonstrates learning and leadership.

Our overall conclusion is to continue this outstanding way of leveraging and developing professional learning for experienced teachers. (Campbell, Lieberman & Yashkina, 2013, p. 4).

We were then invited by the Ministry and OTF to conduct a five-year longitudinal study to provide annual reports on the impact and progress of the TLLP (Campbell et al., 2014, 2015, 2016 & 2017) and the longer-term impact and sustainability of the TLLP over time. This report is our Final Report of findings drawing from all six years of research to examine the development and impact of the TLLP.

2. Research questions and methods

This section provides an overview of research questions and methods. Detailed descriptions are provided in Appendix A.

2.1 Research questions

For our initial TLLP research project in 2013, our overarching research questions were:

1. What is the value of TLLP for teachers? And what can we learn about professional development organized in the TLLP way?
 2. To what extent have the overall goals of TLLP been realized?
 3. What lessons can be learned so far?
- For the current longitudinal research, we developed new research questions, in consultation with the Ministry and OTF, to focus on the impact of the TLLP over a longer timeline. The overarching research questions for the 2013-2018 research study were:
1. What are the impacts of TLLP projects for:
 - a. Teachers' professional learning?
 - b. Teachers' knowledge, skills and practices?
 - c. Teachers' leadership skills and experiences?
 - d. Other adults affected by the TLLP projects?
 - e. Student engagement and learning?
 2. How is learning being shared beyond the TLLP project team?
 - a. What approaches to sharing learning are being used?
 - b. How does the sharing of learning affect participants?
 - c. What approaches appear to support the spread of knowledge and changes in practice?
 - d. What approaches appear to support implementation and sustainability of improvements in practice?
 - e. What successes can be identified?
 - f. What challenges are encountered? And how can they be mitigated?
 - g. What is unique about the TLLP approach for knowledge exchange and sharing of successful practices?

3. What longer-term impacts of participating in TLLP projects can be identified?

2.2 Research methods

For the initial, one-year, small-scale research project (Campbell, Lieberman & Yashkina, 2013), our research methods involved:

- analysis of TLLP-related policy documents and professional materials;
- observations and evaluations of provincial events for TLLP participants in 2012;
- analysis of all TLLP Participant Final Reports from Cohort 1-4; and
- interviews with individuals involved in the TLLP (project teacher leaders, teacher union leaders, and government officials).

The subsequent five-year longitudinal study involved the following research methods:

- Observations and analysis of evaluations of the Leadership Skills for Teachers training session and the Sharing the Learning Summit, annual provincial events for TLLP participants held in 2013-2018;
- Analysis of TLLP project Final Reports from Cohorts 5-9;
- Focus groups with the provincial TLLP team representatives (2013-2018);
- Analysis of vignettes written by TLLP project leaders (2013-2016);
- Survey of all previous TLLP teacher leaders from Cohorts 1-7 (2007-2014);
- Mini pre-/post-surveys of current TLLP project leaders (2013-2017);

- Analysis of the Final Reports and Logs of Provincial Knowledge Exchange (PKE) project leaders (2013-2017);
- Case studies of three TLLP/PKE projects (2014-2018);
- Analysis of TLLP online and social networking activity through the Mentoring Moments NING forum (2013-2016); and
- Case study of Television Ontario (TVO) *TeachOntario* (2015-2017).

See Appendix A for full details of methods.

3. Origins and establishment of the Teacher Learning and Leadership Program (TLLP)

In 2005, the government established a Working Table on Teacher Development to bring together education partners



– including OTF and its four teacher union Affiliates (AEFO, ETFO, OECTA and OSSTF) with the Ministry – to provide recommendations on teachers’ professional development. The first phase of the Working Table’s deliberations focused on recommending the development and implementation of the New Teacher Induction Program (NTIP). Having started with a focus on new teachers, the second phase of the Working Table’s focus turned to experienced teachers. This involved two specific areas of foci: “1) a revised Teacher Performance Appraisal program for experienced teachers and 2) professional development for experienced teachers and their ongoing learning” (Working Table on Teacher Development, 2007, p.1).

The Working Table on Teacher Development grounded their recommendations in the underpinning rationale that: “The quality of teaching is the largest, single variable in a school’s impact on student learning”



(Working Table on Teacher Development, 2007, p.3).

Therefore, supports for teachers’ professional learning and practice were considered to be paramount. The Working Table concluded that there should be no “one size fits all” approach to professional learning in recognition of the variety of needs, experiences, interests, contexts and career stages of teachers and the variety of their students, classrooms and practices. Going forward, five characteristics were recommended for the design and provision of professional learning for Ontario’s teachers:

1. **Coherent:** Teacher professional learning is ultimately about best practices for student learning and development and occurs in the context of the Ministry/board/school and parent/community/classroom continuum. Coherence is also built on the “three R’s” of respect, responsibility and results, recognizing teacher professionalism and the complexity of teacher learning.
2. **Attentive to Adult Learning Styles:** Teachers come to each professional learning experience with a wide variety of skills, knowledge, education, teaching, and training background. As a result, when planning professional learning, adult learning principles should be addressed by:
 - Considering the role of choice. Research supports the importance of choice and self-direction in personalizing the learning.
 - Providing programming that is viewed as meaningful, relevant and substantive.

- Providing differentiation in the content and delivery models.
- Considering “best fit” within a culture of collaborative learning. The “one size fits all” approach may prove problematic in many circumstances. Effective learning must recognize and include the participants’ understanding and perspective in order to bring about a culture of reflection and transformation.
- Providing appropriate recognition for the successful completion of professional learning.

3. Goal-oriented: Professional learning is enhanced when it is goal oriented and is clearly:

- Connected to improved student learning and achievement.
- Connected to daily practice (job embedded), both directly and indirectly.
- Situated within and respectful of varied contexts (i.e. relevant to Ministry, board, school/community, classroom).

4. Sustainable: Professional learning that will have impact in the classroom must:

- Be planned and progress over time (i.e. it is a process).
- Be supported by appropriate resources focused on its success.
- Involve the learners and allow time for practice (job embedded).
- Include time for self-assessment through reflection (construct/deconstruct/re-construct thinking about practice) within its processes.

- Include, wherever possible, congruency in professional learning for other staff who support student learning.
5. Evidence-informed: Professional learning should be considered and be built upon current research as well as both formal and informal data... (Working Table on Teacher Development, 2007, pp.4-5).

Two further considerations emerged from the Working Table's deliberations. First, building on the conclusion that there is no "one size fits all" professional learning model; there is also no single pathway or career trajectory for teachers. Therefore, there is a need for a variety of professional learning opportunities, differentiated for individual teachers' needs. Second, as the Working Table had initially focused on newly qualified teachers, it was now time to also turn attention to the professional needs of "excellent experienced teachers for whom their choice of career is the classroom... yet who seek a peer leadership role in areas such as curriculum, instructional practice or supporting other teachers" (Working Table for Teacher Development, 2007, p.5). Reflecting back on the Working Table and related deliberations, a Ministry interviewee commented:

... what we realized was that in our system, there was staff development that came down from above, and there was learning or progression or leadership that meant becoming a consultant or a principal. That was the one leadership pathway, and what was missing was for these thousands of teachers we had out there at the time who had 15-20 years of experience, who enjoyed teaching, who were very good teachers.

The Working Table concluded with three recommendations. First, to endorse the five characteristics of effective professional learning (see above). Second, to enhance the coordination of professional learning. And third, to develop opportunities

for experienced teachers to share exemplary practice, 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. (Working Table on Teacher Development, 2007, p.6).

The stage was set for the development of the TLLP. As a provincial interviewee commented, there was a "joining of the practical and political will" to do something different to support the professional learning of teachers. Central to this joining of will was also the development of a joint commitment and a strong, shared partnership of working together involving OTF, its Affiliates and the Ministry. People from OTF and the Ministry worked together on developing the recommendations of the Working Table and on following up with developing a shared proposal for a solution to the third recommendation of creating opportunities for experienced teachers to share exemplary practices. There was a sense of shared commitment, joint ownership and partnership from the outset.



This moment also provided an opportunity to build on a shared vision of teachers' professional learning by

OTF and the Ministry and to draw on the findings of a needs assessment conducted with teachers about forms of meaningful professional learning in 2006. An OTF interviewee commented:

What we found in the survey... there were some findings that were atypical of the kind of professional learning that mostly teachers were getting, and what they identified was the most meaningful for them. What they identified was that they most liked stuff that was most relevant and applicable in their classrooms, but that allowed them opportunities to interact with other teachers; they wanted more opportunities to observe other teachers, and they weren't afraid... everybody asked us if they (ie, the teachers) were afraid of other people coming into their classrooms to observe them, and they weren't. They wanted more opportunities to share what they knew with other teachers. So all of these things came out, and was quite consistent with what was in the research literature about meaningful professional learning. So there was this whole notion of finding professional learning that was meaningful.... So, this came out of: A) OTF's desire to find something that was in keeping with the needs assessment, and then the work that we did at the Working Table on professional development where, with the Government... we developed what meaningful professional development would look like for teachers... That process of working with the Government on what constituted meaningful professional learning, in keeping with the needs assessment that we had done, really provided a frame for what the experiences would be like and what the project would have. We were in high agreement... The development of professional learning that was meaningful for teachers became a major part of the vision for TLLP.

A second major part of the vision was to create an opportunity for the actual sharing, spread and sustainability of teacher-led innovative and effective practices.



For example, a Ministry interviewee commented on their own experience of working with individual teachers, or principals who introduced highly effective practice, but of these practices not continuing after the individual left the school or retired, recounting:

I was so impressed with it (new effective practice for boys' literacy), and when she (individual who initiated practice) retired, that was the end of it; we had no way to spread out, we had no way of ... I mean, we made sure people were aware, but there wasn't really a vehicle to get a bunch of people to go there and watch it, or for her to bring her staff and make presentations... She retired and that was the end of it, and that always stuck in the back of my mind that there's something wrong with that ... here's very practical, on the ground, successful strategies, and we can't get it out there. So that was the one that nagged for me in the back of our minds. And then through the partnership table... we got talking about professional learning a lot, and it was quite disjointed in terms of people's understanding of what it was and what was professional learning vs. professional development vs. staff development? (staff development, for the most part, being what we do, because the system is so huge), and where was the role for professional development, teacher choice... And so it kind of evolved out of there, and we started working with OTF,

and... it kept evolving, and people were obviously very keen and very thrilled to have this opportunity...

An OTF interviewee spoke also of the importance of developing a way to share innovative teacher-led practice, recounting a discussion with an international educator working to develop networked learning communities:

He said to me, and I remember this so well, and this is, for me, what really characterized the TLLP, that's why I'm sharing it with you. He said to me, "every day in classrooms, there are miracles happening. Absolute miracles. Teachers are doing fantastic things. And the teacher in the classroom next door has no idea about the miraculous things that the teacher next to him/her is doing; the teacher in the next school doesn't know it, and the teacher in the next district certainly doesn't know it. How do we take those miracles and share them?" What they had done was this notion of networked learning communities, and in what he showed me, they had taken teachers and allowed them to go into each other's schools. What a concept – imagine going into another teacher's school? ... So, this whole concept of sort of coming out of your classroom, and the fact that you've done fantastic work that has worked really well with your students, how do you then share it in a non-threatening way, but in a really good way with other teachers? That, for me, was very key in what we sort of had in our heads as we thought about what the TLLP would be.

A third aspect of the developing vision for TLLP was the emphasis on teacher leadership and learning. As a Ministry interviewee commented, previously:

So there wasn't that other path where leadership could be internal, could be within the school, and that's where TLLP

came in – where you could take the staff development, but you could push it further, or you could take other needs that weren't covered by staff development (because staff development cannot cover all of the needs, or all of my needs as a professional) and really push it further, and feel worthy of this research, of this learning that I'm doing, and then help share with others, and therefore develop a certain leadership, which always existed. There was always this informal leadership in a school where new teachers who had questions or would go to the experienced teachers and ask them, but this wasn't recognized; TLLP recognized this leadership that existed and raised it from just that informal sort of "kitchen table" type leadership to something very, very present and something very knowledgeable and actually province-wide. Now this leadership is not only known within the school – that such and such teacher is good – but it's within the board, and often throughout the province.

From these evolving visions – enabling experienced teachers to have choice, flexibility and meaningful professional learning; facilitating the sharing and spread of teacher-led innovative and effective practice; and developing teachers' leadership – the TLLP was established. And integral to this work from the outset have been the values, principles and practices of "trust and relationships, collaborative thinking; cooperation" (OTF interviewee). Interviewees spoke strongly and supportively of the partnerships and trust developed between OTF and the Ministry and with teachers and other partners that have resulted in shared ownership in, and commitment to, the TLLP.

4. Implementation and development of TLLP

The TLLP began in 2007 as a joint initiative between the Ontario Ministry of Education (Ministry) and the Ontario Teachers' Federation (OTF) with shared goals to:

- support experienced teachers to undertake self-directed advanced professional development;
- develop teachers' leadership skills for sharing their professional learning and exemplary practices; and
- facilitate knowledge exchange for spread and sustainability of effective and innovative practices.

In response to an annual call for TLLP proposals from the Ministry and OTF, experienced teachers can submit a TLLP project proposal to a school district committee. The proposal is to include a description of the proposed project, how the project will contribute to student learning and Ontario's provincial education priorities, and a rationale for the proposed TLLP team's professional learning objectives. The plan also includes specific goals, activities, measures and budget required for each of the teachers' professional learning activities, and for the sharing of learning. School district committees review applications and submit their priority choices to a provincial committee comprised of teacher union and government representatives, who select projects for funding.

Successful teacher applicants receive training, support, and funding for their TLLP projects. TLLP projects vary considerably in size (from a team of 1 to over 20) and budget (from under \$5,000 to over \$50,000); however, the average TLLP project has a core team of 2-4 members and budget of about \$20,000 (CDN). In the May prior to the school year in which they will embark on their TLLP projects, teacher leaders attend a *Leadership Skills for Classroom Teachers* training to support their preparation to take on the professional learning, project management and leadership expectations of a TLLP. The *Leadership Skills for Classroom Teachers* training includes project development and management, managing a TLLP project budget, using the TLLP online platform and social media, gathering evidence from the TLLP and preparing for their Final Report, and an overview of the *Sharing the Learning Summit* which is the culmination of the TLLP project. In addition, participants have opportunities to hear from

and engage in discussion with Ministry, OTF and Affiliate partners, the TLLP research team and TLLP alumni to share their experiences and advice. TLLP teacher leaders are expected to develop and implement their projects throughout the following school year. Participants become part of an online community and, until very recently, were required to share at least two artifacts from their TLLP. More recently a further online platform, *Teach Ontario*, has been created and is becoming a main source for TLLP teachers to network and share resources online. In the November of the next school year, following the completion of their TLLP projects, TLLP teams attend the *Sharing the Learning Summit* to showcase their learning and to further spread their practices. Typically, a TLLP project spans 18 months from initial training, through implementation and then the culminating Summit. TLLP project leaders are required to submit a final report, which includes information regarding project goals and successes, professional learning, project sharing, challenges and projected learning and impact beyond the completion of the initial TLLP project funding.

In addition, to further spread learning from completed TLLP projects, school districts can apply for Provincial Knowledge Exchange (PKE) funding for release time and travel to enable former TLLP teacher leaders to share their knowledge and practices with other schools and school districts across Ontario (and potentially beyond). The PKE project budgets range from \$5,500 to \$60,000 per PKE.

5. Findings about the impacts of TLLP projects

In this section, we discuss findings concerning the research questions:

What are the impacts of TLLP projects for:

- Teachers' professional learning?
- Teachers' knowledge, skills and practices?
- Teachers' leadership skills and experiences?
- Other adults affected by the TLLP projects?
- Student engagement and learning?

5.1 What are the impacts of TLLP projects for teachers' professional learning?

Our research indicates that the TLLP offers significant benefits for teachers' professional learning by making it more active and customized as well as more relevant and meaningful. The program embodies a number of principles and practices that are deemed effective in teacher professional learning currently, including teacher voice, ongoing job-embedded learning, evidence-informed learning, collaborative learning, and necessary supports.

5.1.1 Teacher voice

Ingvarson (2014) recommends that "professional development should involve teachers in the identification of what they need to learn and in the development of learning experiences in which they will be involved" (p. 389). Such approach to professional development will ensure that the content of the professional development is relevant to teachers' needs and it will also motivate and engage teachers by providing them with a sense of ownership and responsibility (Robinson et al., 2009; Timperly et al., 2007; Youngs & Lane, 2014). Teachers' voice in their professional learning is what the TLLP is all about and this is what makes the program unique and successful. This key feature of the program is greatly appreciated by the participants and the organizers alike, as one interviewee from the Ministry stated:

... the more that I work with it, the more that I realize that it is such a unique program that provides funding for teachers who basically want to pursue what they want to pursue and have the leeway to do that. So I think that is something that is constantly reinforced for me.

Teacher voice is evident in the variety and nature of goals that TLLP participants set for their projects as well the nature of professional learning activities that they choose to engage in to reach those goals. Consistent with our

previous research of Cohorts 1-4 (Campbell, Lieberman & Yashkina, 2013), the top three professional learning goals for the TLLP projects in Cohorts 5-9 (according to the final report analyses) were to develop and improve understanding and knowledge, develop strategies or an approach, and develop or improve skills or practices. These goals were mostly focused on improving teaching and learning – such as learning about a new approach and developing strategies for its implementation, researching new technological tools and integrating them into classroom practice, developing a brand-new program or process, or improving particular subjects, such as mathematics, instructional, assessment, or technological skills. Other common goals included developing resources (for classroom use, for training or informing others, and for sharing), developing professional collaborations between educators (within and across grades, divisions, panels, or schools), connecting with families and community (connecting with aboriginal communities, engaging parents, and developing school-community projects), and developing leadership skills and experiences (presenting, sharing, and leading adult learning). These goals reflect TLLP participants' own interests and needs as well as needs of their students and local communities. In other words, the TLLP supports ***relevant and meaningful learning that has the potential for impact beyond the classroom walls.***

Teacher voice and the self-directed nature of the TLLP professional learning model is reflected in the types of professional learning activities that teachers engage in during the course of their TLLP project. Our research (from analyses of TLLP final reports and a survey of Cohort 1-7) identified that TLLP participants chose to take professional learning into their own hands and engage in ***active and personalized learning***, such as collaborative learning, planning, and teaching, critically look at their own teaching as well as student learning, review research conducted by others as well as conduct their own research. Activities associated with more traditional forms of professional development – such as attending workshops and conferences, enrolling in courses, and working with external experts – were also present, but to a much lesser extent. Importantly, TLLP leaders were the

ones who decided which workshops or conferences to attend and which experts to work with.

5.1.2 Ongoing job-embedded learning

Current research suggests that teacher professional development should be “job-embedded, ongoing and directly related to the challenges teachers face in daily classroom instruction” (Griffith et al. 2014, p. 190). While workshops continue to be a popular form of professional development in Canada, including Ontario (Campbell, Osmond-Johnson et al., 2017); there are concerns that isolated workshops are unlikely to change practice (Desimone & Stuckey, 2014) and that “professional development that is disconnected from classroom practice has little impact” (Dagen & Bean, 2014, p. 45). In the case of the TLLP, most of the projects are rooted in knowledge and skills for daily classroom practices and the participants are provided with necessary time and resources to reflect on and to improve their practices throughout the year. TLLP participants appreciate this extra time to focus on the area of their interest, to collaborate with other teachers, and to learn and try something new. As one TLLP teacher leader explained:

The project allowed us to maintain a focus for our work over the year. It was refreshing to be able to concentrate on what we felt was most urgent for our students, and then have time to do the work that we need to meet those needs.

5.1.3. Evidence-informed learning

Our research indicates that in the majority of TLLP projects, educators engaged in **evidence-informed professional learning** by engaging in research, either through teacher action research and inquiry, or by reading existing research literatures. Both engaging in and with research are considered two powerful aspects of

teachers’ professional learning (Campbell, 2016; CUREE, 2012; Nelson & O’Brien, 2014).

According to the findings from the analysis of final reports, TLLP participants used multiple formal and informal techniques to identify problems,



measure learning, and track progress. The majority of the projects used some formal measures, such as surveys, observations, student and teacher assessment, and student portfolios. In some projects, photos, videos, number of website page visits or posts, and work samples were used as evidence of professional growth and its effects. One of the projects reported on the use of student achievement data:

Student achievement data has validated our efforts. ...We are able see the evolution of our learning in our classroom environment - our classrooms look very different, more student generated and less teacher controlled...

Most participants also kept reflective journals or learning logs or blogs to monitor their learning. For example, in one of the projects, an online collaborative environment was used as a reflective journal:

Qualitative measures of our learning can be found in our online collaborative environment. In some ways, this environment serves as a reflective journal for each of our team members, as we share our classroom successes and challenges relating to iPad use. When we respond to one another to support colleagues' further learning and/or to share our expertise, we add a new dimension to the reflection journal.

Therefore, TLLP participants are both drawing on research to inform their work and also gathering and using evidence to reflect on and monitor the progress of their TLLP.

5.1.4 Collaborative learning

The need for teacher professional development to include opportunities for collaborative learning and the development of communities of practice is widely supported in the research literature (e.g. Desimone & Stuckey, 2014; Donohoo & Velasco, 2016; Sharratt & Planche, 2016), because it has a potential to develop both individual and collective teacher efficacy (Hargreaves & Fullan, 2012). The TLLP involves attention to individual teachers' development and to the development of teams working together. A school principal in the case study of the TLLP/PKE project on the Ultimate Potential (UP) Math, a grassroots initiative originating out of Monsignor Pereyma Catholic secondary school, commented:

You might have great things going on in 10 different classrooms within a school. But if you're not sharing them, there is a great loss occurring. With TLLP, you have people identifying a need, going to the research to learn about best practices and then going through the cycle of learning and making attempts for improvement. And then once they're achieving, either successes or failures, they are sharing that as much as possible.

In Pereyma, as well as in most other TLLP projects, teachers no longer wanted to work in silos and used TLLP project funds to create opportunities for collaboration and sharing. In fact, according to our analysis of TLLP final reports, teacher collaborative learning was, by far, the most common professional learning activity, with 95% of the projects in the Cohorts 7-9 sample reporting engaging in some kind of collaborative learning to acquire new knowledge, skills or to develop new strategies or resources. Collaborative inquiry, professional learning community, and community of practice were the most

common collaborative learning activities, with the majority of the projects engaged in them.

The engagement in such collaborative learning opportunities not only helped to improve knowledge and practices of the individual teachers, it built collective capacity of the team and developed deep professional relationships lasting beyond the cycle of the project. For example, in a cross-panel project on math literacy, the Final Report described the development of a deep professional relationship among teachers:

Our TLLP project dramatically increased the level of collaboration among the intermediate and senior math teachers within our family of schools. By joining one another in a team-teaching environment on a regular basis, we developed a level of professional ease rarely experienced across panels. We coached one another and developed deeper professional relationships rooted in trust and a common goal to improve our teaching practice. While we did learn much from one another during these sessions, we continue to learn and support one another outside of these sessions via our online TLLP teacher Edmodo site.

Collaborative professional learning through TLLP projects also helps create learning environments that a) openly encourage learning from each other rather than the 'expert' at the front of the room, and b) make individual practice more visible among colleagues with invitations for feedback within a culture of trust and support. For example, this was observed in our case study of the Documenting Literacy and Learning in Kindergarten PKE project, where face-to-face and online collaboration and sharing opportunities engaged 65 teachers and administrators in collaborative professional learning.

5.1.5 Necessary supports

Frost (2012) comments, “teachers can lead innovation, build professional knowledge, develop their leadership capacity and influence colleagues and practice in their schools, provided they have the appropriate support structures and strategies” (p. 223). Effective professional learning opportunities for teachers should include a component designed to support teachers throughout this process. The TLLP provides teachers with funding that allows them to focus on their identified project. The provincial TLLP team also supports teacher leaders throughout their journey: first, by preparing them to develop and lead their project during the *Leadership Skills for Classroom Teachers* training session; then, by making individual and direct mentoring and support available during the course of the project online and in person; and finally, by helping teachers consolidate and celebrate their successes during the culminating *Sharing the Learning Summit* at the end of each TLLP cohort.

Leadership Skills for Classroom Teachers Training Session

In advance of beginning their project, teachers who are new TLLP project leaders attend a Leadership Skills for Classroom Teachers training. The training involves expert facilitation from a range of experienced presenters and workshop facilitators. Details of the event have changed over time in light of teachers’ feedback and researchers’ recommendations; however, the ongoing points of focus have been on: preparing teachers to develop and manage a project aimed at developing teacher knowledge and skill, and ultimately impacting student learning and well-being; managing a budget; developing and sustaining a team focused on achieving a common goal; writing a **final report**; **sharing the learnings from the project**; and leading adults in their learning. At the end of the training, all participants are asked to fill out a feedback form where they can indicate their level of satisfaction with the training session as well as specify what they find valuable and what can be improved. The analysis of the feedback forms over the years indicates a very high level of satisfaction with the Leadership Skills for Classroom Teachers training. Apart from the initial training event held in 2008, the satisfaction rate – the percentage of

participants reporting being satisfied or very satisfied with the event – remained above the 90% mark, reaching a high of 97% in 2009 and dipping to the still very high 91% in 2016 and 2017. This high level of satisfaction is associated with two main factors: first, a thoughtfully designed and delivered program with useful information and knowledgeable presenters/facilitators; and second, the OTF and Ministry’s responsiveness to the participants’ suggestions, resulting in slight changes in the logistics, format and content of the session year after year.

The event participants appreciated the range and quality of training sessions and presentations, opportunities to learn from previous TLLP participants, time to network and learn from colleagues, and opportunity to connect with members of the TLLP provincial team, whom they are encouraged to contact should they experience any challenges along their TLLP journey. The most valuable aspects of the training reported by respondents throughout the years are:

- opportunities to network with colleagues,
- time to work on their TLLP project,
- the range and quality of training sessions and presentations, and
- opportunities to learn from previous TLLP participants.

TLLP Sharing the Learning Summit

The TLLP Sharing the Learning Summit is also an important support mechanism

in celebrating the professional learning and leadership growth acquired through participation in the TLLP, as well as inspiring the TLLP teacher leaders to continue learning and leading with their colleagues. The analysis of the event feedback forms indicates an extremely high level of satisfaction with the Summit, with 95%-98% of



participants reporting being satisfied or very satisfied with the Summit. The following quote from a Summit participant demonstrates the importance of the sharing summit for the program participants:

Honestly, the sharing at the end [Sharing the Learning Summit] was the most amazing PD... that's how PD should be run for everybody, because it was completely differentiated and customized... It was just the most authentic PD, and it was teachers talking to teachers; there was no sense of ... you know, consultants often get the reputation of talking down on teachers, and sometimes they do, I don't think they mean to, but I think that comes across. It [the Summit] wasn't like that because people were all on equal playing fields. When you do that ... it's distributing your leadership... I learned so much.

Additional Support Mechanisms

Throughout the course of the project, both the Ministry and the OTF support the work of the TLLP participants by helping them address any challenges they might encounter. These less formal supports “in between” the initial training and culminating sharing events provided by both the Ministry and OTF are vital to the success of the projects. As a Ministry interviewee explained:

So I come back to all the in between work that happens between the training and the Summit, the fact that the TLLP teachers know that there's somebody at the Ministry that they can e-mail or call and that literally they will get an answer. Even if it's not the perfect answer, the fact that there is that support there that's part of their web, if you will, I think is really powerful. And “so I'm not in it alone. I have my team, I have my school, but I also have some other people, and OTF, as well, who ‘have my back.’”

Another support mechanism is the growing TLLP community of past and current participants. During the

initial training session, the current TLLP participants have an opportunity to network with their colleagues, connect with others involved in a project with a similar topic, and learn from previous TLLP project leaders during workshops and plenary sessions. “Networking with colleagues” and hearing from prior TLLP leaders were among the top rated “most valuable aspect” of the training throughout the years, according to the event feedback forms. The following quote from a TLLP Final Report is an example of how connections made during the initial training become a source of support throughout the course of the project:

During this past year, we also kept in touch with other members of the TLLP community which we had met at the initial training session. We shared the respective challenges we were facing (which, as it turned out, were very similar), and encouraged each other to persevere. This sense of community among leaders, and leaders-in-training, is one of the most rewarding aspects of this project.

5.2 What are the impacts of TLLP projects for teachers’ knowledge, skills and practices?

The evidence that we have gathered and analyzed in our research confirms that TLLP has a profound positive effect on teachers’ knowledge, skills and practice. For example, in our survey of TLLP teacher leaders for TLLP Cohorts 1 – 7, all 243 survey respondents reported improvements in their knowledge, skills, and/or practice as a result of TLLP-related professional learning activities that they developed and engaged in. In Cohorts 1-4, 70% reported benefits of new knowledge and improved understanding compared to 95% of projects in Cohort 9. In Cohorts 1-4, 58% reported benefits of changes in instructional practices compared to 90% of projects in Cohort 9. These are highly encouraging findings concerning the impacts for participating teachers’ knowledge, understanding and practices.

The degree of change in teaching practices varied. In some cases, teachers integrated a new strategy or tool into their classroom practice, and in other cases, teachers' established approaches to teaching and learning were completely overhauled by the newly acquired learning and understanding. One TLLP leader described how his philosophy of teaching, his teaching practice, and even the look of his classroom completely changed after he learned about new approaches to teaching and learning during the TLLP:

The greatest impact on my teaching through this TLLP project has been my role in the classroom. Before beginning this project, I was a lecturer. Based off of student feedback they enjoyed my class and my lecturing style, and I would take these compliments of my 'teaching' as a reflection of their learning. After beginning this project through a literature review of Physics Education Research (PER), I quickly came to the realization that the students liking me was not directly correlated to their learning. I decided that this TLLP project would be the best way for me to change my role in the classroom from 'sage on the stage' to 'guide on the side'. This required me to relinquish my control of the content to the students and drastically change how my classroom operated. My symmetrical rows and columns of desks were replaced with tables and chairs where the students faced each other instead of me and had a large white board...as a common space for sharing ideas. My big binders of notes were neatly filed away and replaced with EDpuzzle videos that students interacted with at home. My class time become filled with inquiry based laboratories using sensors, simulation software for circuits, cooperative group problem solving sessions and peer discussion of multiple choice questions. My classroom went from being filled with my voice to being filled with 20 - 30 voices

actively being engaged in physics discussions for 75 minutes. In effect, I feel like I actually became a teacher after 9 years of teaching. My focus was now shifted from teaching to helping students learn.

The results of the TLLP survey and final report analyses also suggest improvements in skills related to teaching and learning – such as technological skills (e.g. using iPads, online learning environments, blogging, coding, etc.), classroom management skills, research skills, and planning practices – have occurred due to the TLLP projects.



Teachers' professional confidence grew as well as a result of participating in the TLLP. Increases in self-efficacy were reported by at least half of the respondents in the survey of Cohort 1-7 TLLP teacher leaders. Similarly, the findings from the mini-surveys for Cohorts 8-10 indicate large significant increases in the participants' confidence level in implementing practices from the TLLP project (9-11% increase in confidence comparing start to end of TLLP project period). For example, in their Final Report, a leader of a TLLP project focusing on integrating restorative practice described the team's growth in the comfort level with the new practice as well as in the team's collective efficacy:

Our comfort level with the practice has increased dramatically and is now incorporated into the day to day functioning of the classroom... As a team, we are much more comfortable using restorative practices and have also been able to look to the future, identifying areas we can improve on our use of the practice.

Teachers' attitudes to teaching also changed. The majority (58%) of the survey respondents for Cohorts 1-7 reported greater energy and inspiration. In our analyses of final reports, TLLP participants commented on feeling excited to teach again, being inspired to take risks, and being eager to share and collaborate, or in the words of TLLP participants, the TLLP project "brought a lot of excitement back into ... classrooms and careers" and helped them "to get re-energized" and get out of their "stuck thinking".

5.3 What are the impacts of TLLP projects for teachers' leadership skills and experiences?

While research about teacher leaders encourages teachers to support learning through professional networks and contribute to school improvement (Hargreaves & Fullan, 2012; Hargreaves & Shirley, 2012); few large-scale approaches to professional development have tried putting teachers in positions where they organize the development of ideas, lead, implement and share their findings and receive money and support to organize the development of the work. TLLP teachers are asked to go beyond being 'expert teachers' to being 'expert leaders' of professional learning.

The TLLP provides the conditions (funding, training, and support) for learning leadership but does not specify a formalized or standardized approach to teacher leadership. Enabling teacher leaders to emerge and learn the skills required for successful leadership through their own experiences requires flexibility and space for a diversity of teacher-led learning; as an OTF interviewee commented:

...the image I always use is if you took a chrysalis and you put it in a matchbox ... what happens if you put a chrysalis into a matchbox, and the size of the chrysalis is exactly the size of the matchbox? What happens when the butterfly is ready to emerge? There's no space for it to open its

wings. And that's a really good image for us to keep in our heads... These are not teachers who start out necessarily as pre-recognized or pre-packaged leaders. They grow into leaders, and so if we confine too closely what they are allowed to work on ... and even for the fabric of what makes up the TLLP, if all of the projects are about math or all about numeracy or all about ... it's so less interesting than when you get somebody who is looking at a specific aspect of what makes a difference in kindergarten, or what about transitions...

We identify two main impacts of TLLP projects for teachers' leadership skills and experiences: first, learning leadership by doing leadership; and second, growth in confidence and improvement of leadership skills.

5.3.1 Learning leadership by doing leadership

From the outset of the TLLP, the vision was for teachers to become and be recognized as leaders of their own and their peers' professional learning. As an OTF interviewee commented in our initial research study:

So our notion of leadership is exactly... when I said ... in the successful ones we said that 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, it's about, what does being a leader really mean in any field? It means that other people look at you and say, "Oh, I would like to be just like... she's excellent at ..."

In our provincial focus groups, it was explained that through the TLLP, “a regular teacher becomes a star”. TLLP provides teachers – particularly those leading TLLP projects – with the opportunity to learn, to contribute to the learning of teachers, other adults and students, to change and improve practices, and to become leaders for educational improvement. TLLP teachers learn by doing. According to interviewees, “teacher leadership” is an outcome from the experiences of learning and leading a TLLP project. Furthermore, in contrast to formal leadership in administrative roles, according to a Ministry interviewee, this is about valuing “small ‘I’ leadership” through the informal – yet influential – leadership of TLLP participants.

The TLLP provides teachers with an opportunity to learn leadership by engaging in authentic leadership experiences as they organize and work through a project. In the vignettes written by TLLP teacher leaders, they described how they learned that they needed to share their leadership, include others’ ideas, try out new ways of thinking about their (and their students’) learning, deal with a budget to work through some of the strategies, manage the work and often some conflict (in the ideas, or among the group), and at the same time keep the group engaged and working forward. Leading a TLLP project involved confronting many things that the teacher leaders had never thought about or experienced before and the teachers needed to be open to thinking differently about their work.

The vignettes gave us the “processes of learning to lead” and the personal and organizational narratives that were built along the way:

You get “buy in” by involvement and coming together and breaking the isolation that many teachers feel.

We learned that you don't need to be a lone wolf. When peers are willing to take a risk together, we all move forward and learn...

TLLP teacher leaders had to deal with a number of challenges, such as shortage of time, project management issues, changes in project scope. However, they almost always found a way to deal with those challenges and acquire valuable leadership experiences along the way. For example, in their final reports, TLLP leaders commented on underestimating the time required for managing a project, building a team, installing technology or equipment, or implementing a new learning. A leader of a project focusing on building positive mindsets with students around number sense commented on her team’s strategies to deal with time and workload pressure:

We learned to delegate and divide responsibilities to complete all components of the project. We learned to seek and accept help outside our project group members to accommodate time challenges. Flexibility to alter the original plans to meet the needs of the project.

Staying focused and organized, setting manageable goals, looking for ways to be more efficient, delegating tasks, requesting help, and being persistent, patient, and flexible were some of the strategies that were used to overcome time-related difficulties.

5.3.2 Growth in confidence in leadership and improvement in leadership skills

The mini-survey data, comparing TLLP teacher leaders’ reported confidence at the start and then at the end of their TLLP project, revealed significant increases in the participants’ confidence level in the following leadership areas: sharing knowledge and practices with close

colleagues and wider educational community (6-10% increase); leading own and others' professional learning (6-8%); leading a team (5-7%); and being a teacher leader (5-6%). As one respondent noted:

These projects have changed me and improved teaching and learning for me, my students and well beyond. Thanks to TLLP I am a Teacher-Leader. I want to love and lead from inside the classroom and this has made that possible.

Significant improvements were reported in the participants' leadership skills as well. Our survey data from Cohorts 1-7



indicates improvements in leadership skills were reported by 97% of respondents, while the data from final reports from Cohorts 7-8 shows improvements in leadership for all (100%) of the sample respondents. In his final report, one TLLP leader commented on his growth as a leader in multiple areas:

The project has provided an opportunity for me to develop my own leadership abilities. I feel that I have learned to help guide teachers through a process of self reflection ... I have learned to better articulate my long-range goals. I have also developed an ability to facilitate focus groups with more effectiveness so that discussions can have a clear focus with a defined outcome. I have learned to think critically of myself as a teacher and also as a leader.

One of our teacher interviewees expressed well the potential for a teacher to become a teacher leadership through the TLLP:

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. There is kind of a dichotomy in terms of the challenge within the practice, I guess, where there is this extra amount of work on top of your regular job. But on the other hand, we were trying to identify descriptive words that the work was, and the connection, the collaboration, the brainstorming, and the creative sort of outlet was rejuvenating for us. 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 offered the opportunity.

According to our analyses of a sample of Cohort 9 Final Reports, the majority of projects reported leadership growth in collaborative problem solving (100% of sample), communication (90% of sample), facilitating sharing of learning (85% of sample), collaborative decision making (80% of sample), presentation skills (70% of sample), team building (70% of sample), empowering others (65% of sample), facilitating adult learning (65% of sample), organizational skills (65% of sample), administrative skills (60% of sample), mentorship (60% of sample), building trust (55% of sample), research skills (55% of sample), and managing the change process (50% of sample).

5.4 What are the impacts of TLLP projects for other adults affected by the TLLP projects?

A further highly encouraging finding is that the majority of TLLP projects report important benefits for adults beyond the immediate TLLP team. Such impact varied from project to project, depending on the nature of

the project and the goals and nature of the sharing activities. Our research indicates benefits for other educators (teachers, school administrators, coaches and consultants), parents and families, and local communities.

5.4.1 Other educators

As most of the TLLP projects focused on teaching and learning and the main audience for sharing was teachers (see section 6.1.1); among the other adults affected by the TLLP, the impact on teachers was the largest. The main benefit of the TLLP for other educators was improved knowledge and understanding, which was reported in over 65% of the projects in Cohorts 5-9. The majority (55%) of the final reports in the Cohort 9 sample stated that educators (outside of the TLLP team) who received new learning were inspired to make a change in their practice (by trying out the newly learned strategies, tools, or shared resources) or in their professional learning experiences (by taking more risks, engaging in collaborative learning, or applying for a TLLP grant). In the majority of the projects in the Cohorts 7-9 sample, TLLP-related activities helped change other educators' professional learning and planning practices by developing or improving an "open-door", collaborative culture within a division, a department, a school, or even across a board (as discussed further in Section 6.2).

5.4.2 Parents and families

TLLP projects can also have beneficial impacts for parents and families. For example, in the case study of the TLLP/PKE project on Documenting Literacy and Learning in Kindergarten, parents were frequently identified as beneficiaries of teachers' use of learning technologies to document student learning. One interviewee – who was a participating teacher and also a parent of students whose teachers were involved in the TLLP - spoke positively about the benefits of the TLLP/PKE:

I am also a parent of students in the school that have these online classes and everything, and to see their excitement to say 'and the teacher said it's on the online classroom tonight, we can look at [it].' and

for me as a parent from the other side, to see their excitement at home... It's really neat for me to see both sides.

Teachers also spoke about their increased levels of communication/interaction with parents as a result of incorporating digital technology into their daily practice. In particular, technology helped develop special connections for the military families that made up a significant proportion of the school's community. These parents, in particular, have spoken about the ways in which the use of technology in the classroom is allowing them to stay connected to their children's lives during their absence. For example, one TLLP/PKE teacher leader shared, "She [a deployed parent] said that actually receiving those updates and pictures actually helped her get through living so far away from her kids."

5.4.3 Local communities

Some TLLP projects had an impact on local communities. In one project, for example, by partnering students and social agencies, a stronger relationship between the school and community was developed:

Goodwill has been created between the school and the agencies involved in the projects. Feedback from the students and agencies indicated that there was greater understanding of the 'other' as a result of the interaction between students, teachers and agencies.

Therefore, while the main audience for TLLP participation is teachers, some TLLP projects have expanded their impact to parents/families and communities.

5.5 What are the impacts of TLLP projects for student engagement and learning?

While the TLLP is primarily focused on teachers' learning and leadership, the intended improvements in professional knowledge, skills and practice are anticipated

to also benefit students: either the entire population of students, which was the case in the majority of projects, or a particular group of students identified (for example, students with special education needs or Indigenous students). It is recognized that the TLLP is one of many factors affecting students' learning and development and establishing a direct relationship is problematic. Nevertheless, almost all of the survey respondents in our research reported that their TLLP projects affected their students in a positive way.

5.5.1 Student engagement and attitude

Overall, the majority of TLLP projects report improvements for students' learning and related outcomes. The top reported student outcome was improved student engagement and attitude towards learning, as reported by 73% of the survey respondents. The majority of the projects in our analysis of the final reports also reported improvements in student engagement, attendance, and attitude. One project leader described the drastic changes in his students' engagement levels after he changed his approach to teaching:

I observed students truly engaged for 30-45 minutes while they solved a difficult problem. It just reinforced my commitment to active learning, since the students were actually doing physics for an entire class rather than being passive bystanders while an 'expert' told them how to solve a problem.

Survey respondents included comments about students becoming "so much more engaged in their learning", taking "ownership of their learning goal" and having "compassion for learning".

5.5.2 Student learning and achievement

The majority of survey respondents also reported their project's positive impact on students' learning experiences (68%) and academic achievement (56%). Improved learning experiences (more engaged, deeper,

and more applicable learning) and learning skills (e.g., "21st century learning skills such as critical thinking, creativity,



collaboration, and communication" or being "more technologically literate") were also observed in the majority of the TLLP final reports analyzed for our research. These improvements were reached via different methods: by passing "the control of learning to the students"; "giving students a chance to succeed at their own level"; using real-life problems; changing learning environments; using technology; and sharing "the research about how they learned best". In most of the projects reporting substantial gains in student achievement, teachers focused on improving their teaching strategies and closely monitored data on student achievement (using EQAO provincial assessments and teachers' own classroom assessments). For example, one teacher commented on the role of a TLLP project in supporting a transformation in her students:

Because they [the students] lead their own guided reading groups, they've learned to be responsible, use accountable talk, and dig deeper into text. We feel they are more engaged and confident readers. While there are many variables for reading achievement, we feel our TLLP is one of the reasons they have improved comprehension (by our measures) and also success on EQAO.

Moreover, comparing our analysis of recent (Cohorts 7-9) TLLP projects with our analysis of Cohorts 1-6, we notice a shift in the central focus of projects from teaching to student learning and from student achievement to student learning and wellbeing. An increasing focus on pedagogical change, student wellbeing, and 21st century skills has occurred over time in TLLP projects.

5.5.3 Student voice and leadership

The combination of student learning, student voice, and pedagogical change is exemplified by our PKE case study of UP Math at Monsignor John Pereyema Catholic Secondary School in Durham Catholic District School Board. Using a focus on gratitude to change mindsets, raise self-esteem and uphold high expectations by and for students; the evidence from UP Math indicates benefits for empowering students' voices and leadership and for developing their self-efficacy and engagement with noteworthy gains in student achievement (from 17% achieving the provincial standard or above in Grade 9 Applied Math to 71% of students following the TLLP project). Such gains are not only about test scores, they are about the moral and ethical commitment to improve students' lives. As Leanne Oliver, the PKE leader, explained:

It's emotional, these are our kids. We saw that when these kids are falling behind in Grade 9, the limitations that are placed on their life and on their further academic achievement are profound. And so, we need to remove those barriers. It had to change. It's our moral imperative. It must change. And we were sick and tired of waiting for this to happen.

The most important impact of UP Math for students, perhaps, is the confidence and strengthened student voice that UP Math students carry forward with them beyond the TLLP project. The student-led math council at Pereyema, which has focused on making math more relevant by organizing math-based events for the school, is an example of students articulating and acting on their interest in shaping their own learning.

5.6 Summary

By providing the conditions (funding, training, and ongoing support) for a self-selected and self-directed professional development effort, the TLLP facilitates active, collaborative learning that is embedded in teachers' work, informed by evidence and provides

opportunities for authentic leadership experiences. Vitality, TLLP supports and values teacher voice and choice in their professional learning. Our research demonstrates that the TLLP professional learning and leadership experiences have significant benefits for TLLP participants' professional growth as learners, educators, and leaders. The vast majority of the TLLP participants experience improvements in their knowledge and teaching practices. The majority of TLLP teacher leaders also report growth in their leadership confidence and improvements in their leadership skills (particularly in managing a project, problem-solving, organizing and facilitating adult learning and knowledge sharing, collaborating and sharing leadership). As their projects progress, TLLP participants become more confident in implementing new practices, sharing knowledge and practices, leading their own and others' professional learning, leading a team, and being a teacher leader.

The impact of a TLLP project also extends beyond the immediate TLLP team. By sharing their new learning and experiences with other educators, TLLP participants not only share their knowledge with a wider network of educators, they also inspire educators to innovate and make changes in their practices. TLLP projects have a positive effect on students' engagement, attitude, and learning experiences. Some TLLP projects help develop better connections with parents and local communities as well.

6. Findings about sharing of learning from TLLP projects

This section discusses findings for the following research questions:

How is learning being shared beyond the TLLP project team?

- What approaches to sharing learning are being used?
- How does the sharing of learning affect participants?
- What approaches appear to support the spread of knowledge and changes in practice?
- What approaches appear to support implementation and sustainability of improvements in practice?

- e. What successes can be identified?
- f. What challenges are encountered? And how can they be mitigated?
- g. What is unique about the TLLP approach for knowledge exchange and sharing of successful practices?

6.1 How is learning being shared beyond the TLLP project team and what approaches to learning are being used?

In our first TLLP research study, we commented on the importance of knowledge exchange and, while commenting positively on the sharing happening, strongly encouraged the further development of knowledge exchange as a goal and practice through TLLP. Often knowledge exchange is defined as external ‘experts’ providing their knowledge to teachers rather than, vitally, the importance of teachers leading knowledge exchange to value and enable practice and research connections (Tseng, 2012). Findings from the longitudinal research study indicated further growth of teacher-led sharing across the TLLP community and with a wider professional and public community.

6.1.1 Audience for sharing

The main audience for sharing learning from the TLLP projects was other teachers. According to our survey of TLLP teachers in Cohorts 1-7, 96% of respondents considered a main audience to be teachers. The majority (52%) of survey respondents also reported school administrators as a main audience for learning from their TLLP projects. Students, school board administrators, parents and community members were also among the main audiences for TLLP-related learning sharing. In addition, survey respondents also mentioned school librarians, trustees, teacher candidates, professors and researchers, union representatives, Ministry of Education officials, and the wider public as examples of audiences.

6.1.2 Level of sharing

Consistent with the main audience being teachers, the most predominant level of sharing is within the TLLP participants’ own schools. According to our survey of



Cohort 1-7 participants, 77% of TLLP projects shared their learning within their own schools. A majority of survey respondents also shared their learning within their own school board (64%) and almost half of respondents (49%) shared with nearby schools and/or within their family of schools. Based on analyses of the later Cohort 9 final reports, the level of sharing appears to have grown significantly: 95% of the analyzed sample shared learning and spread practice within their own schools; and 95% also shared with other schools/educators in their school board. The majority of TLLP projects shared their learning at multiple levels, for example within and beyond their school. In addition to sharing learning within and across their own school and board, survey respondents identified sharing learning with their local community, with other school boards, across Ontario at a provincial level, and/or at national and international levels.

6.1.3 Approaches to sharing within and across the TLLP community

The infrastructure of support for knowledge exchange and collaborative professional learning provided by the Ministry and OTF for the TLLP provides mechanisms for sharing beyond individual TLLP projects to the wider TLLP community. The use of online networks to support teachers’ sharing of practice is becoming increasingly important (Daly, 2010; Whitaker, Zoul & Casas, 2015). All TLLP projects were expected to post artifacts in an online TLLP community to share their learning. Initially, an e-community was established. In our initial research study (2012-13), the e-community was seen as having

potential to support sharing across TLLP projects, but a range of areas for improvement in the actual platform design and operation were identified. In the following year (2013-14), the e-community site was replaced by the Mentoring Moments NING, which interviewees considered to be a “dramatic improvement” for enabling online sharing, dialogue, activity and engagement. Until 2016, each TLLP project was strongly encouraged to post at least two artifacts from their work on the online *Mentoring Moments NING* (<http://mentoringmoments.ning.com>). TLLP members also used the NING to engage with colleagues through interest groups, discussion forums, blog posts and a Twitter feed. In addition, a TLLP “e-book” was developed to provide interactive profiles and resources concerning all TLLP projects. A further development was the introduction of voluntary Adobe Connect sessions for TLLP participants on priority topics identified through the Ministry’s needs analysis, for example measuring the impact of TLLP projects.

In 2015-16, a further online platform, *TeachOntario*, was developed and has become used by TLLP participants and other teachers to share ideas and resources. All TLLP resources and activity moved to *TeachOntario* in 2016, instead of using the previous NING. *TeachOntario* “was created by TVO, in partnership with the Ontario Teachers’ Foundation (OTF), its Affiliates and the Ministry of Education, and in consultation with TLLP teachers from a variety of districts across the province.” (*TeachOntario*, 2016). It is a digital meeting place for Ontario educators and those interested in education from around the world—a place where they can find and share information, and interact with others in the interest of teaching and learning. Specifically, *TeachOntario* offers educators “the unique opportunity to support professional learning, foster teacher leadership, [and] facilitate the sharing of exemplary practices with others.” (*TeachOntario*, 2016). So far, the platform has won two awards: the 2015 IPCA/Deloitte Public Sector Leadership Award for outstanding leadership in public policy and the 2016 Ontario School Library Association OSLA Award for Special Achievement.

The *TeachOntario* platform is constantly evolving and developing in response to user needs, yet its skeletal frame remains consistent. The site includes three sections: EXPLORE (Curated Resources), SHARE (Your Knowledge), and CREATE (Projects). Resources contained within the EXPLORE section of the website are freely available to the public — they are open to any internet user regardless of their location — while access to resources and groups located in the SHARE and CREATE sections of *TeachOntario* require a formal login. To create a user profile within the system, individuals must be linked to an Ontario school board or authority, any of Ontario’s employee group partners, a Faculty of Education, or the Ministry of Education. Therefore, through *TeachOntario*, TLLP projects are also able to share their learning with a wider external community.

Another important and effective element of the TLLP design to facilitate sharing within, across and beyond individual TLLP projects is the requirement for all TLLP projects to participate in the *Sharing the Learning Summit* as the culmination of their TLLP funding (see also Section 5.1.6). The participants share their projects with each other during the Marketplace sessions and consider how they can share their learning further.

6.1.4 Approaches to sharing with a wider professional and/or public community

TLLP participants report using a range of approaches to sharing learning beyond their immediate project team. In essence, the main approaches to sharing are in-person, often collaborative and job-embedded, professional learning plus use of online methods. Reviewing our analyses of a sample of final reports from Cohorts 1-9, the predominant method of sharing learning for the first eight cohorts of the TLLP was through providing workshops. In the early cohorts (1-4), engaging in professional learning communities was used by the same proportion of projects as the use of workshops (47% for each approach). In these cohorts (1-4), online methods were mainly the use of websites and were only used by a

third of projects in our sample. From Cohort 5 onwards, online approaches were increasingly reported as being used by the majority of projects: 55% in Cohorts 5-6; 73% in Cohorts 7-8; and 85% in Cohort 9. Within this substantial growth in the use of online approaches, the use of blogs and social media has grown in particular as a preferred strategy for sharing learning. However, the rise of online sharing is not instead of, but alongside, continuing in-person collaborative professional learning. Workshops were the top or equal top approach to sharing learning throughout the Cohort 1-8 final reports sampled. In Cohort 9, workshops were still reported by the majority of projects sampled (65%) but had slipped into third place behind online approaches and working with other teachers in their classrooms (both reported by 85% of projects). This shift from workshops and professional learning communities to the rising use of working with other teachers in their classrooms began in Cohort 7 and is important for supporting job-embedded, collaborative learning connected to teachers' knowledge and practices to benefit students' engagement and learning.

A range of other approaches to sharing learning were also identified in our research. For example, in our survey of TLLP participants in Cohorts 1-7, in addition to the above mentioned approaches, other approaches included: staff meetings (61%); teacher professional learning groups (44%); conference presentations (43%); modeling practices in classrooms (43%); mentoring (37%); use of school newsletters (10%); community events (7%); local newspapers (7%); and journal publications (6%). Therefore, in addition to in-person collaboration and online sharing, communication in print media and presentations at community events and provincial, national and international conferences widened the reach and spread of sharing with external communities.

Beyond the processes or mechanisms for sharing learning, it is also important to consider the actual content of what is being shared. Quality content matters (CUREE, 2012; Darling-Hammond et al., 2009; Timperley et al., 2007) for actually developing knowledge and understanding and for improving practices. The development of resources and artifacts that can be used by other teachers, schools,

boards and wider community members is a key feature of TLLP projects. According to survey responses (Cohorts 1-7), in the majority of the projects (73%), TLLP members developed materials that can be used in classrooms, such as sample lessons, lesson plans, assessment tasks and/or teaching strategies, to support the spread of practices. TLLP members also compiled kits with recommended resources (43%), prepared workshops (41%), created videos of teachers demonstrating practices and students talking about the effects of those practices (36%), wrote research and literature review reports (23%), developed communication tools such as blogs and websites (21%), developed an entire program or a framework (21%), and wrote tutorials (8%). Other resources produced included writing a book, developing an online course on the topic, creating a magazine, creating art pieces, making accessible equipment and, developing project promotional materials such as booklets, posters, and book marks.

6.2 How does the sharing of learning affect participants?

As already discussed in Section 5, the impact of the TLLP includes improvements in teachers' professional learning, knowledge, skills, practices and leadership. Other adults have also benefitted from the learning being shared and developed by TLLP projects, particularly a wider network of educators, but also sometimes extending to parents and the community. Benefits for students have also been identified by the majority of TLLP projects, including students' attitudes, engagement, experiences, learning and/or achievement, as well as opportunities for student voice and leadership. Sharing learning from TLLP projects contributes to these benefits for teachers, other adults and students. In this section, we focus on three ways that sharing learning through the TLLP affects participants: de-



privatization of practices; culture of collaboration within and across schools; and board-wide sharing of learning and changes in board policy or practice.

6.2.1 De-privatization of practices

An outcome of the requirement for, and experiences of, the knowledge exchange and sharing learning through the TLLP has been a de-privatization of practice, where TLLP participants are encouraged to make their knowledge explicit, to share their knowledge and practices more widely, and to metaphorically and literally open up their classroom doors. This was an intentional part of the goals and design of the TLLP from the beginning, as explained by an OTF interviewee:

...when you talk of knowledge mobilization and this kind of catching fire of ideas and trying things out, which, again, part of what I think works against innovation is when people are afraid to take the risks. In ways, the TLLP says, "Not only are we encouraging you to take the risks, but we're going to give you money to do it, and we're going to encourage you to talk to other teachers about it." I mean, that is really not what was largely going on in our system for a long, long, long, long time; if you were taking risks, you were closing your door and not telling anybody about it. It's really that attitude of, "Get out of my way and let me teach; I'm closing my door so that nobody can actually see what I really am doing. But, oh, by the way – my students are doing fantastically well because I'm doing all these unusual things with them." What the TLLP does is, it says, "We're opening the doors, we're saying it's ok for you to do the stuff that's not just on the curriculum and not just on what is the prescribed way of teaching, and we're rewarding you for sharing it with other people." So that's pretty amazing.

While making one's practice public might be perceived as risky, it is ultimately rewarding and powerful professional learning for TLLP participants. For example, in the words of a TLLP teacher leader:

I have learned that knowledge sharing is powerful. When teachers share what they have learned, it can spark a genuine interest in professional development. When teachers see other teachers become engaged and passionate about a new way of teaching or facilitating student learning, they can become inspired to do the same.

Another TLLP teacher leader discussed how she had intentionally developed knowledge exchange and sharing of learning to empower the teachers involved:

The opportunity for genuine 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. The other thing is, all of them, initially... part of the TLLP was to effectively learn how to use this tool... But me, in what I do, 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, right? So I think that when I first started the TLLP and said, "OK, we're all going to blog" ... huge learning curve for them to now put their words in a public setting and take that risk of having people read, can be pretty overwhelming at first, for people. But as the TLLP went on and we all agreed we'd blog

once every two weeks... what happened was that the other TLLP members in our group became ... they all opened up their own blogs, their own personal blogs.

By de-privatizing their professional practice, the sharing of learning can engage other teachers to develop and change their knowledge and practices. In our case study of the Documenting Literacy and Learning in Kindergarten TLLP/PKE project, an interviewee commented on her experience with a colleague who initially did not want anything to do with technology, but who changed her mind after witnessing what was happening in this teacher's kindergarten classroom:

So it's just that little spark, and now in her classroom, she's equipped and she's using it. And she's a teacher who has taught for at least 15 years and was against the tech piece, and now tech is essential in her classroom.

A Cohort 9 TLLP project reported that collaborating and sharing learning was beneficial for students, professionals and parents:

When we shared our evidence at our school, every single teacher in our school ended up climbing on board in some capacity! We could not believe the enthusiasm and difference to our school climate – both for the adults and kids! When this information was shared board-wide to Kindergarten teams, we received positive feedback and interest to collaborate further. After sharing to upper administration, our staff felt supported to spend time daily to help students gain mental health strategies and well-being. The impact was also noted by the parents in our school. Parents acknowledged that their kids were using the strategies at home and started

to ask for more information in order to help their kids practice strategies at home. Some children also reminded us [of] the need to practice strategies on a daily basis!

As knowledge and practices spread, TLLP projects and their teachers become a “go to” source for other educators locally and provincially to seek their expertise. As an OTF interviewee commented:

...we've seen a very pleasing increase in acknowledgement about the project, and that has come as a result of a growth in ... the knowledge exchange more than anything else, because people are more and more aware of what's going on, and that has come out of this constant blogging and talking about and celebration of what they're doing, and in terms of what skills they're growing, the confidence that... really does grow their leadership skills and experiences, because the other teachers in the school and the Principals then look to them. And the whole system is looking to them. They are being chosen by the Ministry to present. They are being chosen by us to present. They are being chosen by other School Districts through the PKE. So all of that is progressing well.

Therefore, de-privatization of practices affects TLLP participants as individuals, as part of the TLLP project and also within the wider education community.

6.2.2 Culture of collaboration within and across schools

In our analyses of TLLP final reports, the most frequently identified impact on schools associated with the TLLP was the development of a culture of collaboration (for example, 65% of sample projects in Cohort 9). As one Cohort 9 Final Report respondent commented:

Teacher collaboration is at an all-time high at the school. There are many cross-curricular learning opportunities taking place, and both staff and students have benefitted from this. There is an obvious common vision and goal in our school, that supports an authentic learning model for all students, and I believe this is a direct result of the TLLP project.

Analyses of other cohorts also identified benefits for collaboration across nearby schools or families of schools, for example:

Our TLLP project dramatically increased the level of collaboration among the intermediate and senior math teachers within our family of schools. By joining one another in a team-teaching environment on a regular basis, we developed a level of professional ease rarely experienced across panels. We coached one another and developed deeper professional relationships rooted in trust and a common goal to improve our teaching practice. While we did learn much from one another during these sessions, we continue to learn and support one another outside of these sessions via our online TLLP teacher Edmodo site.

A leader of a project that had successfully created professional collaboration of math teachers and instructional coaches across the school board commented:

As a result of the TLLP, many teachers in many schools are strong proponents of collaboration and constructivist learning. I believe they will continue to seek opportunities to work with others and feel more comfortable trying new things. What at one time might have seemed daunting because of time and/or content now is seen as accessible and manageable.

Opportunities through their TLLP project for teachers to connect with teachers across their school board (and in some cases beyond) are important. One TLLP teacher leader explained:

Before I was the only Physics Teacher at my school and I viewed myself as an island into which I was responsible for developing all the activities and content for my students. Now having begun to develop a physics community of teachers within my board, I view myself as part of a larger team. This team now has a forum to share ideas and enlist each other's help when developing curriculum.

Not all TLLP projects include goals to develop a culture of collaboration within or across schools and, for those that do, not all are successful. Nevertheless, the majority of TLLP projects reported that approaches to sharing learning were resulting in enhanced collaboration.



6.2.3 Board-wide sharing of learning and changes in board policy or practice

In some cases, the TLLP has also provided opportunities for board-wide sharing of learning. For example, one TLLP teacher leader commented:



I have learned that the sharing of learning and knowledge can be a very powerful agent of change. Our board actively sought out opportunities for us to share our learning with all board principals, Kindergarten teachers and Early Childhood Educators and, as a result, we have had many educators from across our board reach out to us to ask to come and visit our classrooms to learn from us. We have also witnessed the excitement about our project spread throughout the community which has led to other Kindergarten teachers in the public board to ask to meet with us and visit our school. When other teachers see a group of teachers collaborating, sharing resources, learning together and generally excited about what they are doing, it is almost contagious. Sharing our learning journey has led to changes that we had never even imagined! It has truly been amazing!

In another project, designed to develop a meaningful Physical Education program for students with special needs, the TLLP teacher leader noted the impact of the TLLP project on her board's practices:

The most significant evidence we have of the impact of our sharing is the program that will now be in place for all of students with special needs for the upcoming school year. Because of the sharing of our learning

our board has dedicated a 0.7 teaching position for the specific instruction of Physical Education, using the programs that we developed throughout our project and the adaptive equipment purchased throughout our TLLP.

In another TLLP project, which later became a PKE (see section 7.3), the use of pedagogical documentation in kindergarten became important board-wide for children, professionals and parents. As one of the TLLP leaders described:

As a result of our participation in the TLLP, tremendous changes have occurred in our school and in our board. First of all, our Kindergarten team has increased collaboration and now operates as a unified group that plans and assesses together.... Parents and teachers alike love the consistency in the programming and there is far less parent pressure on administration to have students placed in specific classrooms for the following year... As we continued with our project, we began looking at ways that we could share our learning with the parent community. ... While the use of technology to communicate with all parents is clearly advantageous, in our school community, with greater than ninety percent of our parent population serving in the military, the benefits are invaluable. ... Our innovative use of technology by educators and students has also changed the technology vision for our school board. ... As a result of the enthusiastic interactions between students, parents, and educators, [school board] has begun to craft a plan to have the same technology available to all of the Kindergarten classrooms across the board and has moved to bring this set up into many of the primary classrooms as well, with an aim to expand into higher grades in the coming years.

Therefore, the sharing of learning can affect participants and spread to a wider group of students, professionals, parents and other adults affected across a school board.

6.3 What approaches appear to support the spread of knowledge and changes in practice, implementation and sustainability of improvements in practice? What successes can be identified?

In the original research design, we had three discrete sub-questions:

- What approaches appear to support the spread of knowledge and changes in practices?
- What approaches appear to support implementation and sustainability of improvements in practices?
- What successes can be identified?

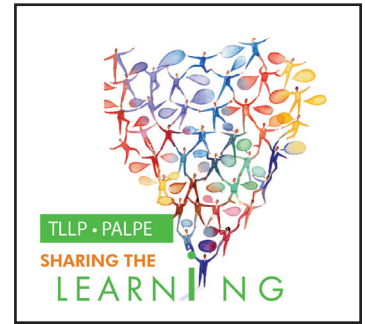
In practice, the research findings for these three sub-questions overlapped and could not realistically be parsed out discretely. It is difficult to disentangle differential effects of each approach and most of the findings suggested the holistic development of a range of approaches and their impact. Therefore, this section provides overarching findings for all of the above questions. We discuss the importance of: the TLLP infrastructure; professional learning collaboration; development and sharing of resources; online engagement; and community events.

6.3.1 The TLLP infrastructure

The *Sharing the Learning Summit* and the expectation of sharing artifacts and engaging online through the NING and now *TeachOntario* are important and beneficial approaches to supporting the spread of knowledge and changes in practice.

Sharing the Learning Summit

As outlined in section 5.1.6, at the end of the *Sharing the Learning Summit*, all participants are asked to fill out a feedback form where they can indicate their level of satisfaction with the entire event as well as specify what they find



valuable and what can be improved. The feedback forms indicate that participants appreciate that the Summit is a thoughtfully designed and delivered program with opportunities for networking, sharing, and learning. The “most valuable aspects of the Summit” are:

- Networking/connections with colleagues across the province;
- The Marketplace sessions and their organization;
- Sharing TLLP projects and receiving feedback;
- Learning from others about their TLLP projects; and
- Dynamic, inspirational keynote speakers.

A key reason for participants’ continued high satisfaction rate is the provincial team’s commitment to continuous improvement of the program and its participants’ experiences. The team’s responsiveness to the participants’ suggestions has resulted in annual adjustments to the organization, format, and content of the event.

NING Mentoring Moments and TeachOntario

From 2013–2016, the Mentoring Moments NING was the main platform for TLLP projects to share their artifacts and interact online. According to the Google Analytics data from April 2013 through May 2016, the NING saw on average over a thousand unique visitors, around two

thousand site visits and about seven thousand page visits per month. TLLP members had the opportunity to engage with colleagues through interest groups, discussion forums, and blog posts. At the end of the 2015-16 reporting period, the *Mentoring Moments* NING had 1,362 members.

Launched on March 31, 2016, *TeachOntario* has since become the main online platform for TLLP projects. *TeachOntario's* global profile and membership have been increasing consistently as the TVO team and *TeachOntario* members continue developing the platform to showcase and support innovative teaching and learning in Ontario and beyond. The site is “a treasure trove” of resources (as one educator called it) that covers a wide variety of topics. Within this broad infrastructure, from 2016-17, new TLLP projects had the choice whether to use the *TeachOntario* platform. Our *TeachOntario* case study indicates that TLLP teachers are supportive of the concept of *TeachOntario*, welcome support to participate, and are interested in accessing and sharing resources.

To examine TLLP projects' use of the *TeachOntario* more fully, we selected the Effective Teaching and Learning in the Digital Age – @HCTLLP (from here on in referred to as @HCTLLP) as a focus group to examine closely because it was the most active cohort 9 TLLP project. By analyzing postings and interactions by @HCTLLP, we identified that comments that expressed appreciation and gratitude were the most common (n=57, 60.6%) followed by opinion statements (n=46, 48.9%). Other types of comments evident within the @ HCTLLP group were communication (n=9, 9.6%), recommendations (n=7, 7.5%), and queries, responses, and feedback (n=2 for each, 2.2%). The @HCTLLP group has double the amount of activity of the next most active group and substantially more activity than that when compared with most other *tllpcreate* groups. This high level of activity may be partially explained by four important characteristics of the project: an explicit focus on using *TeachOntario* to share their learning; a teacher leader with established knowledge about how to use the platform; a project that

aligns well with the other improvement work happening within the school; and teacher leaders who have strong interpersonal relationships with their peers. Benefits of participating in *TeachOntario* included the capacity to interact within the TLLP group and also to connect with a wider network. However, some TLLP members were hesitant about online activity and face-to-face interactions were still needed and valuable. In practice, the combination of using *TeachOntario* and in-person interaction for team communication and use of social media through Twitter for extended networking is necessary for powerful learning and sharing of practices.

6.3.2 Professional learning collaboration and sharing of resources

Overall, the twin strategies of developing professional collaboration – for example, through professional learning communities, online networks and other forms of networking/collaboration – and of developing practical resources for use by teachers, appear to be both the most prevalent and impactful approaches to sharing learning through TLLPs. For example, in our Balanced Math TLLP/PKE case study, teams of teachers from 15 schools came together for PKE professional learning sessions that provided opportunity for discussion, modeling, demonstration, planning and implementation of a Balanced Math program and linked resources. This combined developing professional learning communities within and across schools with tangible resources that were used to inform teaching and learning practices in classrooms. Similarly, vignette writers spoke of using social media, video, websites, blogs and newsletters to communicate with and develop a network, plus creation of teaching units, resource books, DVD, assessment materials and training to inform and change practice.

The Cohort 9 final reports sample identified both online approaches and working with teachers in their classrooms as the main forms of collaboration and sharing learning (both reported by 85% of projects). According to our analysis of Cohort 9 Reports, the most common online method is blogging, which was done by 45% of the projects, to recount their TLLP learning journey, share

ideas and resources, reflect and seek feedback. TLLP teacher leaders also spread word about their project via social media (30% of Cohort 9 sample), such as Twitter, FaceBook, LinkedIn, or Instagram. A quarter of projects (25%) developed a project website and/or used an online learning platform, such as Google Drive, district portal, NING Mentoring Moments, or TVO's *TeachOntario*, as well as via online conferencing, webcasting, and a district website. One of the earlier TLLP projects had placed a particular emphasis on blogging with considerable success; as the TLLP teacher leader explained:

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 12-13,000; 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. But, I mean, what can be done... 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. The more people I could get to blog ... So we had our initial core group that would facilitate or mediate this blog, but everyone would talk to somebody... even on Twitter. Or I'd meet someone at a conference in California or whatever, and I'd ask them, "Hey, would you be a guest blogger?" and then they would sign up. Now I have, say, thirty guest bloggers on this blog, and they're all these high-end educators from around the world, and the blog is just this living entity that I don't think I've added anything in a while. 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.

For working with teachers in their classroom, the main approaches used by TLLP projects in Cohort 9 were classroom visits, demonstrating new strategies and techniques, coaching, and co-teaching. A TLLP teacher leader commented on the value of classroom observations:

Although sharing this learning can be difficult outside of the teachers involved, interest from other teachers was generated through witnessing student engagement and creativity. Often teachers would inquire about the style of teaching because they could see that the students were passionate, involved and on task.

Another TLLP teacher leader used the strategy of providing resources for all classrooms in her school:

I took it upon myself to provide each teacher with packages for each child in each grade with math problems every year we did a Math Fair... I went into classrooms and introduced the math problem of the day... And got people who were not comfortable to become comfortable.... We have over 700 students in our school, so I provided a lot of math puzzles...

Several projects also attempted sharing their knowledge with the local community by organizing various community events, distributing newsletters, and engaging a local TV station and a newspaper. For example, one project on experiential and authentic learning developed a series of informational and cultural workshops for educators and local community partners. This project learning was shared at professional learning community opportunities at Spirit Point Lodge in North Bay (2 x 3 day workshops), a dream-catcher workshop, lacrosse workshops, Inuit Arctic games workshop, throat-singing

workshop, ceremonial dance workshop, Horse-Spirit Connections excursion, Residential School/Survivor of Residential School excursion, crafting workshops, dog-sledding excursion, Sweatlodge ceremony, culminating year-end school trip to Spirit Point, Circle of Trust, guest speakers, Peel-Aboriginal Network, Métis Credit River Council workshop, and drumming workshops.

6.4 What challenges are encountered? And how can they be mitigated?

TLLP projects are innovative and it can therefore be anticipated that TLLP teacher leaders will experience some challenges during their project. Across the cohorts, the main challenge reported is time. Other challenges have included project management, project scope, communication, funding, technology, resources, logistics, sharing challenges, and relationships. In this section, we outline two main types of challenge with implications for successfully sharing learning from the TLLPs: time; and communication, ownership and relationships.

6.4.1 Time

Throughout Cohorts 1-9 analyzed for this research study, time has always been the number one challenge reported (see also Section 5.3.1). The challenges of time for professional learning, particularly collaborative learning within the school day, are very common across Canada (Campbell, Osmond-Johnson et al., 2017). The TLLP does provide teacher leaders with an 18-month timeline to plan and implement their projects and resources, including budget, to support their professional learning. TLLP teacher leaders need time and funding to plan for the professional learning they will lead, to develop the resources to be shared, and to engage in collaborative learning opportunities in classrooms, at events and online. The majority of TLLP Final Reports analyzed identified time as a challenge in each cohort and, by Cohort 9, 75% - the highest reported proportion – of projects cited time challenges.

6.4.2 Communication, ownership and relationships

TLLP teacher leaders also needed to learn how to develop appropriate communication methods to engage other people in the TLLP and intended shared learning. For example, a TLLP teacher leader reflected:

We learned that not everyone is as excited about our ideas as we are. We need to do a better job of communicating the value of what we do and why we do it... We learned that in order for success, all of those impacted have to be involved at all levels of planning... More honest, open communication with colleagues may have helped to navigate the challenges within the professional environment.

Sharing learning among others could present challenges. For example, leaders of a project on integration of coding and gamification in various areas of curriculum came across a lack of interest on the part of some teachers who were discouraged by the technology and skills that were required. They learned to make their ideas more attractive to others by showing how effective they could be:

The prospect of introducing coding into a class other than computer science can be daunting for most teachers. Very few teachers were willing to consider using our assessment tool at the outset. However, after successfully implementing it into our own classrooms, we were able to provide exemplars and tips on how to make the experience more rewarding. We also posted an invitation for educators on LinkedIn to participate in our project and try out coding in their own classrooms, and some teachers got in touch to say that they were interested. Some educators (mostly those from other school boards) felt that this was a project they needed to focus on acquiring

more hardware and access to Wi-Fi in their districts/schools before they could decide how to allocate those resources. We had hoped that the bulk of the year would be spent supporting teachers in classrooms where coding and gamification had been introduced, but instead it was spent sharing the successes of our own classroom experiences, and convincing teachers to try it out next year.

Sharing learning requires careful communication and thoughtful approaches to engaging others and developing co-ownership of the intended changes in knowledge and practices from TLLP projects.

6.4.3 Mitigating challenges

Three major categories of approaches to mitigating challenges can be identified: the role of the *Leadership Skills for Classroom Teachers* training in preparing the TLLP teacher leaders; the strategies developed by TLLP teacher leaders during their project; and seeking additional support.

Leadership Skills for Classroom Teachers training

When a TLLP proposal is approved by the Provincial TLLC, new TLLP project leaders attend a *Leadership Skills for Classroom Teachers* training in advance of beginning their project. As discussed in Section 5.1.6, details of the event have changed over time in light of feedback; however, an ongoing feature is a focus on preparing teachers to take on the professional learning, project management and leadership expectations of a TLLP project. In addition to helping prepare new project leaders to manage and lead their projects, the TLLP training provides a good start for their TLLP journey:

I really appreciate how reassuring everyone from the Ministry and TLLP team has been [during the training event]. I now feel much more prepared to get to work on our project.

Through training and also developing relationships with TLLP colleagues, including at the Ministry and OTF, TLLP teacher leaders had supports for the start of their project and also contacts to reach out to during their project.

Strategies developed by TLLP teacher leaders during their project

As discussed in Section 5, part of the TLLP is learning leadership by doing leadership. During their TLLP project, teacher leaders navigate a range of strategies and, mostly successfully, find a way to mitigate or overcome challenges. In Cohort 9, for example, the sample of projects analyzed “mostly” (70%) or “fully” (30%) achieved their goals. No project reported not meeting their goals. The project leaders were able to deal with many of the challenges described above by applying one or more of the following approaches: developing open-lines of communication; negotiating; requesting assistance and support from colleagues, administration, OTF/Ministry; setting manageable goals; being more organized by setting timelines, schedules, agendas; fostering relationships, building commitment, and sharing leadership and decision-making; using existing resources; being flexible and creative; being resilient and persistent; and being patient when waiting for uncontrollable issues to resolve.

Securing additional supports

Almost half of the respondents (49%) to our survey of TLLP Cohorts 1-7 indicated receiving some additional support for their TLLP projects. This additional support came from a variety of sources, but mostly from the TLLP project leaders’ school board (28%), school administration (24%), or colleagues (20%). Further support was also provided by the Ministry of Education, local community, parent council, OTF, and/or other professional and educational organizations. The main use of additional support was release time (32% of survey respondents), for example to prepare a workshop, to attend a conference, or to form a professional learning

community, and continue the project. Just over a quarter (26%) of the respondents received additional funding to increase the scope of the project, to purchase technology and resources, or to share the innovation further by, for example, presenting at a conference. In 17% of the projects, additional advising or mentoring was received from the board leaders, school administrators, the TLLP provincial team, an IT department, or colleagues. In another 17% of the projects, TLLP members were able to use existing resources and opportunities (such as school facilities, events, educational materials) to learn and to share knowledge.

6.5 What is unique about the TLLP approach for knowledge exchange and sharing of successful practices?

From its origins to its continuing development, the TLLP has provided a unique program to support teacher-led knowledge exchange and sharing of successful practices. We highlight five important unique features, which in combination make the TLLP a powerful form of teacher learning and leadership.

6.5.1 A government, teacher federation and teacher partnership

A unique and defining feature of the TLLP is that it is a joint initiative between OTF and the Ministry. This has been true from the origins of the TLLP in the Working Table on Teacher Development over a decade ago to current work. Provincial focus group interviewees spoke of the “unprecedented partnership” which contributed to “shared ownership” and “relational trust”. Two overarching benefits were identified. First, the TLLP project and TLLP participants benefited from the contributions and support of both the OTF and Affiliates and the Ministry, resulting in an initiative supporting “very progressive teacher learning”. Second, there are “value added benefits” for a provincial partnership bringing together government, federations and teachers, focused on positively supporting teachers and teaching. Continuing to cultivate a mutually appropriate

partnership will be important throughout all stages of the TLLP.

6.5.2 Provincial funding, training and supports for teacher-led innovations

The key elements in the design of the TLLP are vital – funding for teacher-led proposals, training at the start of projects to support teachers leading their TLLP, continuing support from the Ministry and OTF throughout the duration of the TLLP, and mechanisms for online and in-person sharing, including the *Sharing the Learning Summit*. The TLLP provides support for teacher-led innovation and inquiry-based leadership practices to develop, implement, adapt, share and apply improvements in teaching and learning practices. Provincial focus group interviewees commented enthusiastically about the importance of this “innovation mode” professional development led “by teachers, for teachers”. The support for teachers to identify areas of need – potentially ones not being met by current practices or training – and then put in place projects to address these, is highly valuable. With relatively small budgets, projects have innovated, implemented and spread effective practices. While each TLLP project is unique, the potential for TLLP participants to see and participate beyond their classrooms and schools has developed a collective of teachers with shared “passion” and “moral purpose” through the TLLP community. As a provincial focus group interviewee commented, the TLLP is intended to be an enabler of authentic professional learning:

I think there's a lot in the TLLP that enables teachers who ordinarily would not be able to exactly carry out their brilliant ideas, and so they are given some supports – both in terms of time and in terms of some of the technology that normally would not be available to them – and so it does really allow them to have a learning experience that maybe would have been harder for them to have without it.

While the TLLP is fundamentally about teacher-led practice, the overall provincial support and partnership is also important.

6.5.3 Of, by and for experienced teachers

Coming out of the deliberations from the Working Table on Teacher Development (see section 3), the TLLP was intentionally designed as a unique, new professional learning opportunity for experienced teachers. One TLLP teacher leader commented:

This was considered to be particularly important for experienced teachers looking for new learning opportunities and new ways of developing their professional learning, as another interviewee commented: I think I was at a point in my career where I was looking for something where I could have some autonomy or independence... first off, I'd like to say that the experience over the year (or more than a year by the time the Summit came along) was such a hugely positive experience for me, as well as for members of my team...our project was about social justice... we found it – I think several of us on the team – to be quite life changing. It was a social consciousness and that personal kind of awareness of what happens/is happening in society around us... "it was the best PD we'd ever had." Nothing comes close to that, and it has continued after the end of the project...

Another TLLP teacher leader explained:

I strongly encourage mid-career teachers to participate in a TLLP project. The opportunity to think deeply and intentionally about your teaching practice, through self-directed learning as an experienced teacher, is an excellent way to update your pedagogy to meet the needs of today's learners, while enriching your own passion for teaching.

Our TLLP teacher leader interviewees were universally enthusiastic about the TLLP opportunity and the professional learning experience. The teacher-led, self-directed nature of the professional learning was considered to be unique and vital to success. The results of the survey responses of former TLLP project leaders identified that TLLP participants prefer to take professional learning into their own hands, for example by engaging in collaborative learning, planning, and teaching, looking critically at their own teaching as well as student learning, and reviewing research conducted by others, as well as conducting their own research. One of the TLLP teacher leaders commented on their growth as an educator:

Although initially I did not feel as successful in my TLLP as I would have liked, the experience kickstarted a revolutionary change in my teaching style, approach and effectiveness in and outside my program. ... There is no doubt in my mind that the TLLP and particularly the workshops and keynote speakers helped me grow as an educator.

The fact that the TLLP is teacher-led professional learning and collaborative sharing of knowledge and practices is valuable and powerful. For teachers, the importance of being professionally valued, respected and empowered is a very strong outcome of the TLLP.



6.5.4 Focused on teachers leading teachers' collaborative professional learning

The experience of leading a project that entailed focusing on teacher learning as well as student learning involved considerable professional development for TLLP teacher leaders. As one TLLP teacher leader interviewee reflected:

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. So if I think it had a significant impact on my understanding of the content level that I was researching around math, elementary math, around the pedagogy, familiarity with the research; also, the biggest shift that I would not have engaged in thinking about are issues related to teacher learning – other teachers' learning, related to the content.

The collaborative nature of knowledge exchange and sharing learning through the TLLP, for example for TLLP project teams, with the TLLP community and/or with other participants affected by the TLLP project, was considered to be unique and powerful also. As a TLLP teacher leader commented:

The opportunity for collaborative professional learning was also an important feature: I wanted to continue my own learning; I had already been involved in, I'd say, some more formal teacher action research, through funding through MISA, and I decided to continue that learning. But, beyond that, I would've been working to continue my own learning anyway, but really it was about trying to engage my colleagues so that I wasn't on the journey alone.

The goals of the TLLP to develop teacher-led professional learning and knowledge exchange resulted in new and effective ways of teachers developing and sharing their

knowledge, skills and practices to benefit other teachers and the students they serve.

6.6 Summary

In summary, the intended audience for knowledge exchange and sharing of learning is mainly teachers. However, the sharing does go to a wider student, professional, parental and public community. The majority of TLLP projects share learning primarily within their school and/or school board. Wider sharing across groups of schools, other school boards, the local community, at the provincial level, and in some cases, nationally and internationally is also happening. The main approaches to sharing involve both in-person collaboration and online mechanisms to share resources to support changes in knowledge, understanding and practice. Through the TLLP sharing of learning and collaborative knowledge exchange, de-privatization of teachers' practices is happening as they 'open up their classroom doors'. The TLLP is also contributing to developing cultures of collaboration within and across schools and, in some cases, board-wide policies and practices. Support for knowledge exchange within the TLLP community itself includes the vital role of the TLLP infrastructure – the NING and TeachOntario for online sharing, and the Sharing the Learning Summit. Support for knowledge exchange with a wider professional and public community includes the important combination of in-person and online sharing of practical resources that can be used to support knowledge, understanding and changes in practice. The main challenge experienced is time. A further priority challenge can be developing communication, ownership and relationships with people affected by the TLLP. The Leadership Skills for Classroom Teachers training is helpful in supporting TLLP teacher leaders to anticipate and plan for challenges. TLLP teacher leaders mostly successfully navigate challenges. Schools, boards, colleagues, community members, the Ministry and OTF also provide additional supports to help address challenges. Finally, the TLLP is a unique and powerful



approach to knowledge exchange and sharing learning. This uniqueness comes from the powerful combination of a government, teacher federation and teacher partnership provincially, the provincial allocation of funding, training and supports to teacher-led innovation projects, and the TLLP enabling and empowering experienced teachers to lead their own and their peers' professional learning collaboratively.

7. What longer-term impacts of participating in TLLP projects can be identified?

In this section, we consider the sustainability of the work of TLLP projects beyond the initial project funding, the growth and influence of the TLLP alumni, the development of the PKE and NORCAN as extensions of the TLLP, and the impact of the TLLP “way of working” on Ontario education policies and internationally.

7.1 Sustainability of TLLP project learning and practices

The research findings indicate an extremely high level of sustainability of learning from the TLLP projects beyond their specific funding period. In our survey of Cohort 1-7 TLLP teacher leaders, 98% of respondents reported that the impact of their TLLP had been sustained. The largest form of sustainability was continued implementation of the learning, strategies and/or tools developed through the TLLP (82% of respondents). The majority of respondents also indicated sustainability of professional learning from the TLLP (75% of respondents), of collaborating with colleagues to develop and/or improve teaching practices (70% of respondents), and/or sustainability of continuing to share learning, strategies and tools (66% of respondents).

In our more recent analysis of a sample of Cohort 9 projects, all (100%) reported continuing implementation of the innovative practice from their TLLP. The majority also reported sustained professional learning related

to their TLLP (75%), continuing to respond to interest in their work from others (55%), and continuing the collaboration/networking that they had developed (50%). A minority (45%) reported sustaining online sharing; this is an area worthy of further consideration in combination with supporting the development and use of TeachOntario as a long-term platform for continued TLLP sharing. There is also interest in creating and maintaining a searchable database of all TLLP projects to ensure their continued sharing and impact. Other forms of sustainability reported in the Cohort 9 sample were expanding the area of innovation and/or implementation from the TLLP (30%), presenting at conferences (20%), and considering or applying for another TLLP or PKE (20%).

7.2 Growth and influence of the TLLP alumni

Now in its 12th Cohort, the TLLP has developed a considerable community of TLLP alumni. The scale of the TLLP alumni has the potential to significantly affect the culture, practices and outcomes of the Ontario education system. TLLP alumni are becoming “go to” people for providing professional expertise and resources. For example, one TLLP teacher leader explained:

I felt that my leadership skills were improved, and my distinct talents were more appreciated. I feel like I have an increased knowledge bank of resources that we have put on a wiki for other teachers to access. I do find, from time to time, on a casual, more personal basis, people will come to me and ask about where they can go within the community – so I'm still able to share in that way. It was a huge task that we undertook, so I suppose a limitation is how do you change the world in a year? We tried to change our neighborhood, and I don't think it will

end until I retire, or possibly afterwards. As a teacher I feel I have more confidence – I'm very proud of my work. I feel, like with my colleagues and younger teachers because in five years or so I can retire, I see myself as a role model and I feel that I have the practices and I feel like I have things to offer, to share and to inspire others.

Interviewees spoke of a growing awareness of the TLLP overall and of TLLP projects and participants. TLLP projects are seen as “a source of energy and innovation” when organizations and people are looking for examples of teaching practice and/or approaches to particular education needs. An OTF interviewee reflected:

What's interesting as an evolution is that many of our TLLP grads have had leadership in other things that the Federations have done. So, they've been profiled as leaders in their own Affiliates, but we've use them in conferences, summer institutes, webinars that we offer, all the PD that we offer. When we want to do something on math, we go to our TLLP cohorts to look for those specialists on math.

The TLLP alumni have increasingly become a resource and support for new TLLP cohorts. Reviewing the experience of the 10th Cohort, an OTF interviewee observed:

2016/2017 in my view was a moment, it's a moment of celebrating unbelievable leadership by past TLLP participants. So we have seen an absolute upsurge of the voice of the TLLP previous cohort participants being represented in our own delivery of the program. So in both the Summit and in the training program, we have a lot of leadership from those individuals – which in practice looked like Michelle Cordy doing the keynote address... I think that that's very symbolic of the integration of the leadership and the celebration of the leadership that we have

created through the project and that really came to bear. This year we've had more past participants delivering the training session than we have ever had in the past, as well. And that included taking the lead on some of our, what we call the Carousels, as well as on the Plenary Sessions.

Responding to the continued interest from the participants and recognizing TLLP alumni as an ever-growing pool of expertise, the provincial TLLP event planning team started engaging TLLP alumni more and more. The most recent TLLP training event, held in May 2018, had the greatest presence of prior TLLP leaders leading both plenary sessions and carousel workshops. Because the analysis of the feedback forms identifies this feature as one of the best three aspects of the event, we recommend that this trend continues in the future.

A further aspect of the growth and influence of the TLLP alumni is through individual career development and advancement. The TLLP is not designed as a route into formal leadership positions; it is intended to support experienced classroom teachers in their work as teachers. Nevertheless, the experience of leading a TLLP and the recognition of teacher leaders' skills and expertise by their school, board or provincial organizations often contributed to further career opportunities. In our survey of Cohort 1-7 TLLP teacher leaders, 40 survey respondents (17%) indicated that their assignment (position or level of responsibility) had changed as a result of their involvement in the TLLP. In our case study PKE's (see section 7.3 below), all of the former TLLP teacher leaders have been promoted into school administrator or school board positions. For some survey respondents, while they did not consider the TLLP to be the only or main factor that helped their career advancement, it had an indirect contribution to their change in position or responsibility by enriching their resume and encouraging them to explore leadership roles. For example, a TLLP project leader described the impact of the TLLP experience on their TLLP team members' development:

Our TLLP experience impacted the practice of each teacher participant. TLLP group members took on new roles in their schools, including formal and informal leadership roles. Some teachers began graduate work in education following their participation in the TLLP project.

7.3 Provincial Knowledge Exchange (PKE)

Following the first five years of the TLLP, it was recognized that, while considerable progress was being made with the goal of knowledge exchange and spreading practice, further supports to enable TLLP teacher leaders share across schools and boards on a larger-scale would be helpful. The PKE initiative was launched in 2012 to fund boards to connect with and learn from previous TLLP participants and to share their practices within and across boards.

In our analyses of PKE Final Reports, the primary goal of all projects was to share their learning and practices from past TLLP experiences within and outside the school board. Consistent with the purpose of the PKE, the most common level of sharing is within the PKE's own board (81% of projects), be it all interested schools (in one case, all schools) or all interested educators, administrators and specialists (ranging from 10 to 329 people) in the board. As with the TLLP, the primary target audience for sharing for all PKE projects were teachers. The majority of projects also extended sharing to school and board staff. Other professionals, students, parents, the Ministry, and community organizations were also identified as main audiences. The main method of sharing used by PKEs was collaborative learning and planning opportunities (81% of projects). Similar to the TLLP experience, a majority of projects used in person workshop/training events (56%) and/or online opportunities (56%). Other methods of sharing reported were conferences (44% of projects) and mentoring or coaching (31% of projects). Half (50%) of PKE projects reported sharing learning with a larger education community; mostly through presentations at

provincial, Canadian or international conferences, using social media and regular media, and making ideas and resources available online, including use of TeachOntario or the PKE/TLLP's own project website. Sharing across school boards was reported by four (25%) PKE projects. In two cases, likeminded educators across two boards shared and collaborated; in another case, the board was interested in implementing approaches developed in another board and "inter-board" professional communities were developed; and finally, one project conducted 17 workshops to share its practices with about 300 educators in 10 districts.

In general, projects were able to reach out through board and school presentations, workshops, professional development sessions, coaching, and co-teaching/co-planning. One project that was focused on improving student mental health was particularly successful in reaching numerous audiences:

As a result of exposure through our TVO interview, TeachOntario Website, and initial presentations, we received additional requests to share the project, provide resources, and translate the document (French)... We worked with 245 secondary school teachers, 51 elementary school teachers, 30 educational assistants, 10 child and youth workers, ten secondary school administrators, four system level administrators, 35 social workers, and 40 school psychologists.

Across the PKE projects, and in three PKE case studies conducted for this research, we found a combination of professional learning and sharing activities – where PKE leaders demonstrated successful practices/strategies, provided evidence (research results, videos) to support their points, and made resources (e.g. lesson plans, assessments, materials to use in class, teacher toolkits, eBooks, instructional videos, suggested resources) available in print or online – to be powerful. Our analyses of PKE logs submitted for our research and Final Reports submitted by PKE leaders to the Ministry,

have shown that PKE projects have had positive impact on educators, students, schools, and boards. For example, a teacher who participated in a collaborative teacher group organized by the PKE project commented on how his involvement encouraged him to make his practice public and to improve:

My TLLP-PKE team has been my go to support when implementing changes and strategies in my classroom and school. Sharing and having conversations around what strategies work and how helps me become a better educator... This group continues to inspire me to open the doors to my classroom even though sometimes the easier path is to shut the door and work alone.

Projects that focused on building partnerships and learning communities helped improve relationships between teachers and between teachers and students. For example, one PKE project reported:

The impact of this PKE is that our school culture has improved. Teachers do not move from this school and over the years have set themselves into factions. Over the course of the year the teachers have bonded and the unthinkable has happened, there are teachers working together inter-disciplinary. This has not happened very often at this school. Through our use of protocols from the staff reform initiative, our teachers have learned how to sift out their teaching beliefs in a non-threatening manner. This has helped bridge the gaps between staff who felt that they were much different than they actually are.

PKE projects also helped spread innovation throughout schools, districts and beyond. For example, one principal commented on how a PKE project created a buzz in her school:

Two educators from my school attended the first session... they were very excited about what they had learned and shared their enthusiasm with staff which prompted more educators to participate in the next sessions. Each educator came back to school saying it was the best in-service they had had all year! There is a buzz at the school!

Benefits for students such as improved engagement, motivation, learning experiences, wellbeing, and academic skills were mentioned in the logs and reports as well. For example:

The [student] learning has evolved into the process of risk-taking, building a community of valued thinking and students taking responsibility for their own learning. All students were engaged and challenged as they worked through the activities and achieved goals. All students showed improvement in phonological awareness skills such as increased automaticity and comprehension as they began to read for meaning. As a result of this project, students across our school board demonstrated increased phonological awareness, reading competency, and reading levels.

Engagement in a PKE project also impacted project leaders and facilitators. One project leader described such impact:

The PKE Program was very impactful in terms of developing our own leadership skills as well. Some of the areas we gained authentic leadership experience in included: managing a budget, public speaking, problem solving, system level experience and networking at the provincial level. In retrospect, this experience also provided us with an opportunity to develop expertise in curriculum development, mentoring, workshop

facilitation, proposal writing, data gathering and action research.

Similarly, in our PKE case studies, we found evidence of benefits for both professionals' learning and students' learning. For example, in the Documenting Literacy and Learning in Kindergarten (DLLK) PKE, which developed from a TLLP project at St. Francis of Assisi Catholic Elementary school in Renfrew County Catholic District School Board (RCCDSB), the reported benefits for teachers' and Early Childhood Educators' professional learning include: making public the knowledge and expertise of the individual participants; creating learning environments that openly encourage learning from each other rather than the "expert" at the front of the room; making individual practice more visible among colleagues, with invitations for feedback within a culture of trial and error; and extending the professional learning occurring within the PKE workshops to the broader context of the home schools, where participating educators modeled and coached their colleagues in incorporating technology into their classroom practice. Likewise, in the Balanced Math (BM) program, originating at Fieldcrest Elementary School in Simcoe County District School Board, the PKE project team reported improved student engagement in math, strengthened differentiated instructional practice, greater confidence and capacity for teacher math instruction, and a wider integration of technology in the classroom. By 2014-15, through the PKE and support of the school board, the BM Mentor PKE program had expanded to 18 schools and a new approach involving BM in Kindergarten to Grade 1 PKE involved 16 schools. In 2016-17, BM Mentors and Mathematics Instructional Resource Teachers-supported district-wide mathematics professional learning involved 189 teachers. Perhaps the most dramatic improvement in student achievement was demonstrated in the UP Math program at Oshawa's Monsignor Pereyma Catholic Secondary School in Durham Catholic District School Board. Prior to their TLLP project, in 2010, only 17% of the school's students

were meeting the provincial standard in Grade 9 Applied Mathematics compared to 71 % meeting level 3 or 4 standards following program implementation.

7.4 Norway-Canada (NORCAN) partnership

NORCAN is a professional learning partnership between schools in Norway and Canada (Alberta and Ontario) that was supported by the Norwegian union of educators (Utdanningsforbundet), the Alberta Teachers' Association (ATA), and by OTF and the Ontario Ministry of Education. NORCAN members collaborated across regional, provincial and international borders, from 2014 to 2018, with a focus on improving equity in math classes by answering the following question:



How can an international network of schools and educators committed to mindful leadership help to identify obstacles to students' mathematical learning and develop strategies for attaining success?

As an OTF interviewee explained:

The NORCAN partnership evolved out of the recognition that the Alberta Teachers' Association held for the gains of the TLLP. Their desire to partner with us was wholly based on what they saw us doing in the TLLP.

In keeping with the principles of the TLLP, NORCAN was designed to honour the professional expertise and agency of those involved, and to provide the supports needed to harness and build on the learning and sharing already taking place. Important areas of emphasis underpinning the program are: 1) collaboration and trust – program leaders believe in the participants' autonomy and capacity to lead their own learning, believe in each partner organization and build strong relationships; 2)

Importance of evidence – program relies on a strong research component to enable articulation of success; and 3) Formalized support structures - events that bring participants together, technology that serves as a central communications and virtual contact mechanism and organizational support at multiple levels.

In Ontario, two schools that had been involved with the TLLP were selected to become NORCAN schools: Tecumseh Vista Academy (Grades K-12) in the Greater Essex County District School Board (GECDSB); and Monsignor John Pereyma Catholic Secondary School (Grades 7-12), in the Durham Catholic District School Board (DCDSB). Importantly, the NORCAN project brings together a team involving school principals, teachers and students:

...the NORCAN team is the school principal, other teachers, usually up to three or four, and also students. So that was what was so powerful about the Ontario visit in May is all of the delegations came with about four students and about four educators from every school. We've always talked about how the TLLP reaches to the classroom and also beyond, and so I think that is the first taste of that done in an intentional way, and the students have brought a real energy to the project and a real passion for their learning. (Ministry interviewee).

This combination of inter-jurisdictional collaboration with students at the center is considered powerful:

What has been fantastic about it has been the collaboration across the three jurisdictions. I think for Ontario and Alberta to be collaborating is fantastic, and certainly to have a collaboration beyond is really ... you learn a great deal. We learned a great deal.

Also, this is a project that involves students in a way that we've not typically done, and so a lot that has come out of it is a lot around student voice. (OTF interviewee).

With opportunities for in-person and online, via a NORCAN NING, sharing between and among schools in Alberta, Norway and Ontario, new ways of furthering learning and improvement were supported. A further learning was that the process of sharing knowledge and practices from Ontario schools also benefited the Ontario schools:

... it's great that we can learn from Norway and we can learn from Alberta, but I think the most power so far I've seen in the project is that we can learn from ourselves. (Ministry interviewee).

7.5 Impact of the TLLP way of working

A further impact of the TLLP is that the guiding principles and way of working embodied in, and developed through, the TLLP is having an influence on other education initiatives in Ontario and internationally. While the funding and TLLP “program” are not intended to become universal, the philosophy and principles informing the TLLP – drawn from principles about adult learning and professional development – are increasingly becoming embedded and interconnected through other initiatives for teachers and teaching in Ontario. For example, both the TLLP and the New Teacher Induction Program (NTIP) are grounded in the same principles from the Working Table on Teacher Development with joint membership from OTF and Affiliates and the Ministry. More recently, the Ministry has piloted new approaches to teachers’ Annual Learning Plans which they hope will be grounded in the “TLLP approach [of] authentic learning led by the learner”. A Ministry interviewee commented:

...those guiding principles of the TLLP. So I think about authentic learning, where the agenda is owned by the teacher where

there's choice and voice, where there's knowledge construction ... so those same principles that are underneath the TLLP, we've tried to apply to the Annual Learning Plan, to our work with new teachers, to even our work supporting associate teachers and teacher candidates. So I think that there's the impact of [TLLP on] the participants themselves – on each other and on their own – but I think more powerfully, maybe there's an impact on us.

Similarly, OTF is building on its TLLP experiences as they and other Ontario partners develop professional learning opportunities for teachers:

We continue to see the spread of the project as a way of doing business, because there are other organizations that have modelled on the TLLP. Those include multiple school boards, OTF, our Affiliates, subject associations. So the notion of creating space for teachers to work together in this way and supporting that work and allowing their leadership to grow and flourish and then leveraging that to spread innovative practice, I think, is quite phenomenal.

A significant impact of the TLLP influencing wider ways of working was its use, along with other experiences, to inform the development of Policy and Program Memorandum (PPM) 159 Collaborative Professionalism. Ministry and OTF interviewees commented favorably about the influence of the TLLP on Collaborative Professionalism. For example:

The fact that the TLLP was used as the model, as the “poster child” for what has really inspired the Ontario government to create their PPM on collaborative professionalism... I know that the TLLP and the successes of the TLLP that we've had and everything that we've done, frankly, to build the TLLP

together, including the research piece, really had high impact on what the government decided to do and their thinking right now around collaborative professionalism. (OTF interviewee).

PPM 159 Collaborative Professionalism builds on the TLLP commitment to mutual respect and partnership as the way the Ontario education profession, government and stakeholders are to work together.

The impact of the TLLP extends beyond Ontario. Drawing on the TLLP research, a book about the TLLP has been published (Lieberman, Campbell & Yashkina, 2017) and is currently being translated into Chinese to be published in China. Publications about the TLLP have been included in several books (Campbell, 2018a, 2018b, 2015; Campbell, Lieberman & Yashkina, 2017; Campbell, Osmond-Johnson et al., 2017a; Campbell, Zeichner et al., 2017; Darling-Hammond et al., 2017; Lieberman, 2018; Lieberman, Campbell & Yashkina, 2015a), journals (Campbell, 2017, 2016; Campbell Lieberman & Yashkina, 2016; Campbell, Osmond-Johnson & Faubert, 2016; Campbell, Lieberman & Yashkina, 2015, 2013; Lieberman, Campbell & Yashkina, 2015b) and technical reports (Campbell, Osmond-Johnson et al., 2016, 2017b), in addition to the TLLP research reports (Campbell, Lieberman & Yashkina, 2013; Campbell et al., 2014, 2015, 2016, 2017). The TLLP experience has been presented by TLLP teacher leaders, OTF and Ministry officials and the research team at major provincial, Canadian and international conferences. One specific example of the TLLP influencing and impacting practice beyond Ontario is that the Scottish College for Educational Leadership (SCEL) has drawn on learning from the TLLP to inform its own Teacher Leadership Program.

7.6 Summary

The vast majority of TLLP teacher leaders report sustaining implementation of practices, professional learning, collaboration, and sharing of resources beyond the initial funding of their TLLP project. The longer-term impact of the TLLP is enhanced also by the growth and influence of the TLLP alumni. Former TLLP teacher leaders can become “go to” people for expertise locally, provincially and even internationally. TLLP alumni are also increasingly supporting new cohorts of TLLP teachers by providing input to the TLLP training events. Although the TLLP is not designed as a formal leadership career development program, TLLP teacher leaders benefit from experiencing leadership and gaining recognition for their knowledge, skills and practices. TLLP teacher leaders often further their career advancement following their TLLP experience. A major longer-term impact of the TLLP is that the TLLP “way of doing things” has influenced education policies, initiatives and professional learning in Ontario and is also being increasingly recognized internationally as a successful approach to teacher development.

8. Conclusions

The journey towards the establishment of the TLLP began at the Working Table on Teacher Development in 2005. By 2007, the TLLP was established importantly in a continuing partnership between the Ministry, OTF and Affiliates. Now in its 12th Cohort, TLLP has developed into a highly effective and impactful program for supporting teachers’ development, other adults affected, and for students’ learning and growth also.

We began our research on the TLLP in 2012. In our initial study, we began by asking:

If experienced teachers were supported to be leaders of learning – their own learning, the professional learning of other teachers, and their students’ learning – what would these teacher leaders do and what would

be the challenges and benefits? (Campbell, Lieberman & Yashkina, 2013, p. 1).

And we concluded from that study:

The evidence is clear: these teacher leaders will do amazing things; they will initiate, innovate, implement and share a wide range of projects which can develop collaborative professional learning, improve practice and support student learning; they will experience success in tangible outcomes – such as changes in professional practice for instruction and assessment - and also importantly in the sometimes immeasurable benefits of being empowered, enabled and valued; they will navigate personal, interpersonal and practical challenges as their leadership is tested and grows; they will learn how to collaborate and share to spread knowledge of student learning and sustain improvements in practices; and they will demonstrate the professional, educational and financial value of self-directed, teacher-led innovative and effective practices. We are struck by how the values of respectful relationships, partnership and collaboration underpin all aspects of the TLLP and how the work at all levels (teachers, projects, OTF and Ministry) demonstrates learning and leadership.

Our overall conclusion is to continue this outstanding way of leveraging and developing professional learning for experienced teachers. (Campbell, Lieberman & Yashkina, 2013, p. 4).

Now, after five further years of longitudinal research, we have further evidence of the continuous improvement of the TLLP design and implementation by the provincial partners, the benefits and impacts of TLLP projects for teachers, a wider network of adults engaged with the

TLLP learning and for students' engagement, learning and development. The spread and scale of impact of the TLLP has grown extensively through the successive cohorts of projects, the TLLP alumni, and related developments for further sharing of professional learning, knowledge and practices including the PKE, NORCAN and TeachOntario. Overall, from reviewing findings from all six years of our research, the evidence is even stronger and clearer about the power and benefits of the TLLP. We conclude again that the TLLP is an outstanding way of leveraging and developing professional learning for experienced teachers.

From the currently completed research (2013-18), we gathered and analyzed further evidence on: the impact of the TLLP for teachers, other adults involved and students; how learning is being shared beyond the TLLP team; and the longer-term impacts of participating in a TLLP project.

8.1 Impact of TLLP for teachers, other adults and students involved

By providing the conditions (funding, training, and ongoing support) for a self-selected and self-directed professional development effort, the TLLP facilitates active, collaborative learning that is embedded in teachers' work, informed by evidence, and provides opportunities for authentic leadership experiences. Vitally, TLLP supports and values teacher voice and choice in their professional learning. The TLLP professional learning and leadership experiences, our research demonstrates, have significant benefits for TLLP participants' professional growth as learners, educators, and leaders. The vast majority of TLLP participants experience improvements in their knowledge and teaching practices. The majority of TLLP teacher leaders also report growth in their leadership confidence and improvements in their leadership skills (particularly in managing a project, problem-solving, organizing and facilitating adult learning and knowledge sharing,

collaborating and sharing leadership). As their projects progress, TLLP participants become more confident in implementing new practices, sharing knowledge and practices, leading own and others' professional learning, leading a team, and being a teacher leader.

The impact of a TLLP project also extends beyond the immediate TLLP team. By sharing their new learning and experiences with other educators, TLLP participants not only share their knowledge with a wider network of educators, they also inspire educators to innovate and make changes in their practices. TLLP projects have a positive effect on students' engagement, attitude, and learning experiences. Some TLLP projects help develop better connections with parents and local communities as well.

8.2 How learning is being shared beyond the TLLP team

The intended audience for knowledge exchange and sharing of learning is mainly teachers.

However, the sharing does go to a wider student, professional, parental and public community. The majority of TLLP projects share learning primarily within their school and/or school board. Wider sharing across groups of schools, other school boards, the local community, at the provincial level and, in some cases, nationally and internationally is also happening. The main approaches to sharing involve both in-person collaboration and online mechanisms to share resources to support changes in knowledge, understanding and practice. Through the TLLP sharing of learning and collaborative knowledge exchange, de-privatization of teachers' practices is happening as they "open up their classroom doors". The TLLP is also contributing to developing cultures of collaboration within and across schools and, in some



cases, board-wide policies and practices. Support for knowledge exchange within the TLLP community itself includes the vital role of the TLLP infrastructure – the NING and TeachOntario for online sharing, the Sharing the Learning Summit. Support for knowledge exchange with a wider professional and public community includes the important combination of in-person and online sharing of practical resources that can be used to support knowledge, understanding and changes in practice. The main challenge experienced is time. Other priority challenges can be developing communication, ownership and relationships with people affected by the TLLP, and challenges of accessing or using technology integrated with the TLLP projects. The Leadership Skills for Classroom Teachers training is helpful in supporting TLLP teacher leaders to anticipate and plan for challenges. TLLP teacher leaders mostly successfully navigate challenges – and grow as leaders in the process. Schools, boards, colleagues, community members, the Ministry and OTF also provide additional supports to help address challenges. Finally, the TLLP is a unique and powerful approach to knowledge exchange and sharing learning. This uniqueness comes from the powerful combination of a government, teacher federation and teacher partnership provincially, the provincial allocation of funding, training and supports to teacher-led innovation projects, and the TLLP enabling and empowering experienced teachers to lead their own and their peers' professional learning collaboratively.

8.3 The longer-term impacts of participating in a TLLP Project

The vast majority of TLLP teacher leaders report sustaining implementation of practices, professional learning, collaboration, and sharing of resources beyond the initial funding of their TLLP project. The longer-term impact of the TLLP is enhanced also by the growth and influence of the TLLP alumni. Former TLLP teacher leaders can become “go to” people for expertise locally, provincially and even internationally. TLLP alumni are also increasingly supporting new cohorts of TLLP teachers

by providing input to the TLLP training events. Although the TLLP is not designed as a formal leadership career development program, TLLP teacher leaders benefit from experiencing leadership and gaining recognition for their knowledge, skills and practices. TLLP teacher leaders often further their career advancement following their TLLP experience. A major longer-term impact of the TLLP is that the TLLP “way of doing things” has influenced education policies, initiatives and professional learning in Ontario and is also being increasingly recognized internationally as a successful approach to teacher development.

The goals originally established for the TLLP have been surpassed and thousands of teachers – and their colleagues, students and communities – have benefited. We strongly recommend that the TLLP, as currently developed and implemented, should continue. We offer below ten essential lessons from and for the TLLP's continued impact.

9. Ten essential Lessons from and for the TLLP

The TLLP is a very successful initiative with extremely positive outcomes for teachers' learning, leadership, and practice. We conclude with ten lessons and suggestions for the future about the importance of:

1. **The Ministry-Teacher Federations' partnership** – The partnership between the Ministry, OTF, and its Affiliates during all the stages of the TLLP development and implementation is essential to the program's success. The fact that the partnership persisted throughout the years is important and impressive. The continuous dialogue and further development of the partnership are vital to the future success of the program. The OTF and Ministry's commitment to improvement is what makes the program current and successful year after year. The TLLP provincial team seeks teachers' feedback and researchers' recommendations and responds to these by

adjusting the program's policies and procedures according to the current needs, interests, and vision. The future success of the program depends on the TLLP's partners continuous willingness to listen to and serve its participants. We highly commend the Ministry and OTF and Affiliates for their continued commitment and evidenced action to provide continuous improvement.

2. **The funding for teacher-led projects** – Unlike most professional development initiatives, the TLLP provides competitive funding to teachers to lead projects on areas of identified need for professional learning and to benefit students' learning. The evidence indicates that the TLLP provides excellent value for money in effective professional learning with sustained impact.
3. **The TLLP's principles** – By giving teachers choice and voice in their professional learning, the TLLP supports authentic, collaborative, job-embedded learning, which leads to benefits for the program participants, their students, colleagues, schools, and communities. By encouraging de-privatization of practice and sharing of learning, the program helps spread innovation and best practices across Ontario and beyond. These principles are the essence of the TLLP that should be carried on.
4. **The TLLP's infrastructure for a support system** – All aspects of the TLLP's infrastructure provide essential support for the success of the TLLP - the initial training event, "in-between" one-on-one consultation and support, online platforms through the NING and now *TeachOntario*, support from the growing TLLP community, and the culminating Summit. These enable TLLP to learn and experiment knowing that their efforts are valued and supported. We suggest all aspects of the TLLP infrastructure of support continue to be provided.
5. **The TLLP's effective approaches to professional learning and knowledge exchange** – TLLP projects vary in their goals and the approaches they use to achieve these goals. However, the combination of collaborative professional learning in person and online to co-create, share and apply practical resources is particularly powerful. Continuing to support TLLP projects to monitor their own processes and outcomes, as well as to conduct external research on effective practices and impact is essential.
6. **The TLLP's spread and sustainability** – The TLLP changes the way teachers think, learn, teach, and lead. The program has been, and should continue, promoting further learning and sharing via: 1) holding the culminating sharing summit, which celebrates the participants' accomplishments and also encourages them and shows how to continue sharing; 2) offering PKE grants to school boards interested in implementing TLLP projects on a larger scale; and 3) further developing the online learning community on *TeachOntario*, including developing an easily searchable database of past TLLP projects and their resources for use by other educators.
7. **The expanding TLLP community** – Involving TLLP alumni in the TLLP participants' training, providing opportunities for the current participants to connect during the events, and launching *TeachOntario* are significant steps to supporting and growing the TLLP community. The TLLP community offers a lot of potential for even further development, The community can be a source of additional support for TLLP participants (e.g. through more formal mentorship opportunities or less formal online discussions around similar challenges and interests). It can also provide new learning and sharing opportunities by connecting TLLP projects with similar topics and/or goals (a searchable database of all TLLP projects and contacts might be helpful here). Further development of the *TeachOntario* platform as a networking tool and a support tool is also recommended.
8. **The further engagement of board and school leaders** – Successful teacher professional learning and development requires involvement and support from board and school leaders as well. The TLLP has been engaging school and

particularly board leaders by educating them about the program, engaging boards in the TLLP proposal selection process, and providing funding to the boards' PKE projects. Despite these efforts, some TLLP participants still experienced challenges associated with the lack of board and school leader support. We suggest the OTF and Ministry give further consideration to the ways to communicate with and engage board and school administrators.

- 9. The TLLP as a unique approach to teachers' professional learning** – Teachers' professional learning and leadership of, by and for teachers requires teacher choice and voice in and through a wider range of professional learning opportunities. There is no one size fits all, even if modeled on the highly successful TLLP approach to professional learning. The TLLP provides one important approach to teacher-led learning alongside other teacher, school, and system professional learning opportunities. The spread of the TLLP principles and way of working are impactful and important; however, it is important to continue to support the TLLP as a unique and innovative approach that is distinctively focused on teacher-led self and peer learning.
- 10. The TLLP story and evidence** – Alongside the important government, federation and teacher partnership has been the integral role of a research partnership to gather, analyze and report findings of the implementation, impact, successes and challenges associated with the TLLP. We commend the OTF and Ministry for acting on all recommendations arising from the research to date. The research has also contributed to telling the 'TLLP story' within and beyond Ontario. As the current research study concludes with this Final Report, we recommend further research is commissioned to continue to inform the development of the TLLP and to ensure evidence of effectiveness is considered.

REFERENCES

- Campbell, C. (2015).** Leading system-wide educational improvement in Ontario. In A. Harris & M. Jones (Eds) *Leading Futures: Global Perspectives on Educational Leadership*. (pp.72-104). London: Sage.
- Campbell, C. (2016).** Supporting teachers as a profession of knowledge developers and mobilisers. *Education Today*. 66 (2), 5-20.
- Campbell, C. (2017).** Developing teachers' professional learning: Canadian evidence and experiences in a world of educational change. *Canadian Journal of Education*, 40 (2), 1-33.
- Campbell, C. (2018a).** Realizing professional capital, by, for and with the learning profession: Lessons from Canada. In H. J. Malone, S. Rincón-Gallardo & K. Kew (Eds). *The Future Directions of Educational Change: Social Justice, Professional Capital and Systems Change*. London: Routledge.
- Campbell, C. (2018b).** Developing teacher leadership and collaborative professionalism to flip the system: Reflections from Canada. In D.M. Netolicky, J. Andres & C. Paterson. *Flip the System Australia: What Matters in Education*. London: Routledge.
- Campbell, C., Lieberman, A. & Yashkina, A. (2013).** Teacher learning and leadership for classroom, school and system improvement. *Pensamiento Educativo: Revista de Investigación Educativa Latino Americana*, 50 (2), 51-68.
- Campbell, C., Lieberman, A. & Yashkina, A. (2013).** *The teacher leadership and learning program: A research report*. Toronto, Canada: Ontario Teachers' Federation.
- Campbell, C., Lieberman, A. & Yashkina, A. with Carrier, N., Malik, S. & Sohn, J. (2014). *The Teacher Learning and Leadership Program: Research Report 2013-14*. Toronto, Canada: Ontario Teachers' Federation.
- Campbell, C., Lieberman, A. & Yashkina, A. (2015). Teachers leading educational improvements: Developing teachers' leadership, improving practices, and collaborating to share knowledge. *Leading & Managing*, 21 (2), 90-105.

Campbell, C., Lieberman, A. & Yashkina, A. with Hauseman, C. & Rodway, J. (2015). *The Teacher Learning and Leadership Program: Research Report 2014-15*. Toronto, Canada: Ontario Teachers' Federation.

Campbell, C., Lieberman, A. & Yashkina, A. (2016). Developing professional capital in policy and practice: Ontario's Teacher Learning and Leadership Program. *Journal of Professional Capital and Community*, 1 (3), 219-236.

Campbell, C., Lieberman, A., Yashkina, A. with Rodway, J., Alexander, S. & Malik, S. (2016). *The teacher learning and leadership program: Research report 2015-16*, Ontario Teachers' Federation: Toronto, Canada.

Campbell, C., Lieberman, A., Yashkina, A. with Rodway, J. & Alexander, S. (2017). *The teacher learning and leadership program: Research report 2016-17*, Ontario Teachers' Federation: Toronto, Canada.

Campbell, C., Lieberman, A. & Yashkina, A. (2017). Teacher-Led Professional Collaboration and Systemic Capacity Building: Developing Communities of Professional Learners in Ontario. In A. Harris, M. Jones & J. B. Huffman (Eds). *Teachers Leading Educational Reform: The Power of Professional Learning Communities*. London: Routledge.

Campbell, C., Osmond-Johnson, P. & Faubert, B. (2016). Developing teachers as the learning profession: Findings from the state of educators' professional learning in Canada study. *Scottish Educational Review* 48(2), 3-23.

Campbell, C., Osmond-Johnson, P., Faubert, B., Zeichner, K. & Hobbs-Johnson, A. with Brown, S., DaCosta, P., Hales, A., Kuehn, L., Sohn, J. & Steffensen, K. (2016). *The state of educators' professional learning in Canada: Executive summary*. Oxford, OH: Learning Forward. (20 pages).

Campbell, C., Osmond-Johnson, P., Faubert, B., Zeichner, K. & Hobbs-Johnson, A. with Brown, S., DaCosta, P., Hales, A., Kuehn, L., Sohn, J. & Steffensen, K. (2017). *The state of educators' professional learning in Canada: Final research report*. Oxford, OH: Learning Forward.

Campbell, C., Zeichner, K., Osmond-Johnson, P. & Lieberman, A. with Hollar, J., Pisani, S. & Sohn, J. (2017). *Empowering Educators in Canada: How High-Performing Systems Shape Teaching Quality*. San Francisco, CA: Jossey Bass.

Campbell, C., Osmond-Johnson, P., Lieberman, A. & Sohn, J. (2017). Teacher Policies and Practices in Ontario. In C. Campbell, C., Zeichner, K., P. Osmond-Johnson & A. Lieberman with J. Hollar*, S. Pisani* & J. Sohn (2017). *Developing Teachers and Teaching in Canada: Policies and Practices in Alberta and Ontario*. Jossey Bass. (pp. 87-202).

Centre for the Use of Research Evidence in Education (CUREE) (2012). *Understanding What Enables High Quality Professional Learning: A report on the research evidence*. London, UK: Pearson School Improvement.

Dagen, A.S., & Bean, R.M. (2014). High-quality research-based professional development: An essential for enhancing high-quality teaching. In L.E. Martin, S. Kragler, D.J. Quatroche & K.L. Bauserman (eds.), *Handbook of Professional Development in Education: Successful Models and Practices, PreK-12*. New York, Guilford Press, 42 – 64.

Darling-Hammond, L., Burns, D., Campbell, C., Goodwin, A.L., Hammerness, K., Low, E.L., McIntyre, A., Sato, M. & Zeichner, K. (2017). *Empowered Educators: How High-Performing Systems Shape Teaching Quality Around the World*. San Francisco, CA: Jossey Bass.

Daly, A. J. (2010). *Social network theory and educational change*. Cambridge, MA: Harvard Education Press.

Desimone, L.M., & Stuckey, D. (2014). Sustaining teacher professional development. In L.E. Martin, S. Kragler, D.J. Quatroche & K.L. Bauserman (eds.), *Handbook of Professional Development in Education: Successful Models and Practices, PreK-12*. New York, Guilford Press, 483 - 506.

Donohoo, J. & Velasco, M. (2016). *The Transformative Power of Collaborative Inquiry*. Thousand Oaks, CA: Corwin.
Frost, D. (2012). From professional development to system change: Teacher leadership and innovation. *Professional Development in Education*, 38(2), 205-227.

Hargreaves, A. & Fullan, M. (2012). *Professional capital: Transforming teaching in every school*. New York, NY: Teachers College Press and Toronto, ON: Ontario Principals' Council.

Hargreaves, A. & Shirley, D. (2012). *The global fourth way: The quest for educational excellence*. Thousand Oaks, CA: Corwin.

Ingvarson, L. (2014). Standards-based professional learning and certification: By the profession, for the profession. In L.E. Martin, S. Kragler, D.J. Quatroche & K.L. Bauserman (eds.), *Handbook of Professional Development in Education: Successful Models and Practices, PreK-12*. New York, Guilford Press, 385 - 411.

Griffith, P.L., Ruan, J. Stepp, J., & Kimmel, S.J. (2014). The design and implementation of effective professional development in elementary and early childhood settings. In L.E. Martin, S. Kragler, D.J. Quatroche & K.L. Bauserman (eds.), *Handbook of Professional Development in Education: Successful Models and Practices, PreK-12*. New York, Guilford Press, 189 – 204.

Lieberman, A. (2018). *Teaching, learning and living: Joining practice with research*. London, UK: Routledge.

Lieberman, A, Campbell, C. & Yashkina, A. (2015a). Teacher learning and leadership program: professional development for and by teachers. In J. Elmers & R. Kneyber (Eds.) *Flip the System: Changing Education from the Ground Up*. Routledge.

Lieberman, A., Campbell, C. & Yashkina, A. (2015). Teachers at the center: learning and leading. *The New Educator*, 11 (2), 121-129.

Lieberman, A., Campbell, C. & Yashkina, A. (2017). *Teacher Learning and Leadership: Of, By and For Teachers*. London, UK: Routledge/Taylor & Francis.

Nelson, J. and O'Beirne, C. (2014). *Using Evidence in the Classroom: What Works and Why?* Slough, UK: NFER.

Robinson, V., Hohepa, M. & Lloyd, C. (2009). *School Leadership and Student Outcomes: Identifying What Works and Why*. Auckland, NZ: New Zealand Ministry of Education.

Sharratt, L. & Planche, B.M. (2016). *Leading Collaborative Learning: Empowering Excellence*. Thousand Oaks, CA: Corwin.
TeachOntario (2016). *About Us: TeachOntario*. Toronto, ON: TVO. Retrieved from: <https://www.teachontario.ca/docs/DOC-1343>

Timperly, H., Wilson, A., Barrar, H., & Fung, I. (2007). *Teacher professional learning and development*. Retrieved from: <http://www.oecd.org/edu/school/48727127.pdf>

Tseng, V. (2012). Social policy report: The uses of research in policy and practice. *Society for Research on Child Development*, 26 (2), 1-24.

Whitaker, T., Zoul, J. & Casas, J. (2015). *What Connected Educators Do Differently*. London and New York: Routledge.
Working Table on Teacher Development (2007). *Report to the Partnership Table on Teacher Professional Learning*.

Youngs, P., & Lane, J. (2014). Involving teachers in their own professional development. In L.E. Martin, S. Kragler, D.J. Quatroche & K.L. Bauserman (eds.), *Handbook of Professional Development in Education: Successful Models and Practices, PreK-12*. New York, Guilford Press, 284 - 303.

APPENDIX A: RESEARCH QUESTIONS AND METHODS

Research questions

For our initial TLLP research project in 2013, our overarching research questions were:

1. What is the value of TLLP for teachers? And what can we learn about professional development organized in the TLLP way?

Sub-Questions:

- a) What supports have been provided for teachers participating in TLLP?
- b) What professional learning topics and approaches have been chosen?
- c) With whom do teachers work (partner, team, etc.)?
- d) How have the ideas and practices from TLLP spread (in school and beyond)?
- e) What challenges have been encountered in leading professional development?

2. To what extent have the overall goals of TLLP been realized?

Sub-Questions:

GOAL 1: To support experienced teachers who undertake self-directed advanced professional development related to improved student learning and development.

- a) How have experienced teachers been supported to undertake self-directed professional development?
- b) How have the projects undertaken related to improved practices for student learning and development?
- c) To what extent have the Leadership Skills for Classroom Teachers and Sharing the Learning Summit contributed to the above goals and to helping classroom teachers to overcome

challenges they encounter in implementing their TLLP projects?

GOAL 2: To help classroom teachers develop leadership skills for sharing learning and exemplary practices on a board-wide and/or provincial basis.

- a) How have classroom teachers developed their leadership skills?
- b) What examples of successful sharing of practices at the school board and/or provincial level can be identified? And what challenges have been encountered?
- c) How have the Leadership Skills for Classroom Teachers and Sharing the Learning Summit supported the development of teachers' leadership skills and sharing of professional learning?

GOAL 3: To facilitate knowledge exchange.

- a) How has knowledge exchange been facilitated for individual projects, across teachers, schools, boards and at the provincial level?
- b) What strategies appear to be successful? And what challenges need to be overcome?
- c) How have the Leadership Skills for Classroom Teachers and Sharing the Learning Summit supported knowledge exchange?

3. What lessons can be learned so far?

Sub-Questions:

- a) What has been the benefit for experienced teachers' professional development?
- b) What has been the benefit for experienced teachers' professional practice?
- c) How is teacher leadership being supported and developed?

- d) Is sharing of learning, knowledge and exemplary practices occurring and benefiting improvements for teachers and students?
- e) Overall what are the main strengths of TLLP and what areas require attention going forward?
- f) What areas of further research are required?
- g. What is unique about the TLLP approach for knowledge exchange and sharing of successful practices?
- 3. What longer-term impacts of participating in TLLP projects can be identified?

Research methods

For the current longitudinal research, we developed new research to focus on impact of the TLLP over a longer timeline. The overarching research questions for the 2013-2018 research study were:

1. What are the impacts of TLLP projects for:
 - a. Teachers' professional learning?
 - b. Teachers' knowledge, skills and practices?
 - c. Teachers' leadership skills and experiences?
 - d. Other adults affected by the TLLP projects?
 - e. Student engagement and learning?
2. How is learning being shared beyond the TLLP project team?
 - a. What approaches to sharing learning are being used?
 - b. How does the sharing of learning affect participants?
 - c. What approaches appear to support the spread of knowledge and changes in practice?
 - d. What approaches appear to support implementation and sustainability of improvements in practice?
 - e. What successes can be identified?
 - f. What challenges are encountered? And how can they be mitigated?

For the initial, one-year small scale research project (Campbell, Lieberman & Yashkina, 2013), our research methods involved:

- analysis of TLLP-related policy documents and professional materials;
- observations and evaluations of provincial events for TLLP participants (2 events in 2012);
- descriptive analysis of all TLLP Participant Final Reports from the first four cohorts (during 2007 – 2011, 302 TLLP projects were conducted);
- in-depth content analysis of a representative sample of 20% of the Final Reports (60 projects);
- and interviews with individuals involved in the TLLP (project teacher leaders, teacher union leaders, and government officials).

Following completion of our initial final report (Campbell, Lieberman & Yashkina, 2013), we were invited to embark on a second five-year longitudinal study to examine in greater depth and breadth the spread and sustainability of the TLLP. The design of this mixed-methods study involved the following research methods:

1. Observations and analysis of evaluations of the Leadership Skills for Teachers training session and the Sharing the Learning Summit, annual provincial events for TLLP participants held in 2013-2018

Our research included the analysis of the content, role and benefits of these events and the work

of OTF and the Ministry to provide professional supports to teachers through learning at these events. Specifically, representatives of the research team have attended all of the events held since September 2013 to observe the professional learning opportunities, exchanges and resources available for participating teachers.

The research also included the review of the analyses of evaluation forms filled out by event participants at the end of each event to indicate their level of satisfaction with the entire event as well as specify what they find valuable and what can be improved. We observed and reviewed the evaluations for the following eight events: Leadership Skills for Teachers held in May 2014, May 2015, May 2016, May 2017, and May 2018; and Sharing the Learning Summits held in November 2013, November 2014, November 2015, November 2016, and November 2017.

The findings are reported in our annual reports of 2014, 2015, 2016, as well as the summary of all findings from 2008-2018 events in this 2018 report.

2. Analysis of TLLP project Final Reports from Cohorts 5-9 (2012-2017)

All teachers receiving funding for a TLLP project must complete a TLLP Teacher Participant Final Report Form using a standard template format plus attach supporting evidence. We conducted a descriptive analysis of all TLLP final reports from Cohorts 5-9 (486 projects) to examine the distribution of projects across the education system and panel, as well as the range of the project sizes (in terms of a project team and budget size), and main project themes.

In addition, we developed a purposive sample of 20% of the final reports (total of 97 projects) for more in-depth analysis of the projects undertaken and the reported successes,

challenges and overall impacts. A detailed coding structure was developed to analyze the reports in relation to our overall research questions and connected to the goals of TLLP. The sampling criteria included: representative distribution across English Public, English Catholic, French Public, French Catholic, and School Authorities; elementary and secondary schools; regional distribution; range in the size of the projects in terms of dollar amounts and also in terms of the number of people on the team; and range of project themes. The sampling and analysis techniques were based on those used in the analysis of the reports from the first four cohorts (Campbell, Lieberman & Yashkina, 2013) to allow for comparison and reporting consistency.

Table 1: Analysis of TLLP Project Final Reports (Cohorts 5-9)

COHORT	ALL PROJECTS	SAMPLE PROJECTS
COHORT 5	86	17
COHORT 6	78	16
COHORT 7	106	21
COHORT 8	115	23
COHORT 9	101	20
TOTAL	486	97

The findings are reported in our annual reports of 2015, 2017, and 2018.

3. Focus groups with the provincial TLLP team representatives (2013-2018)

Annual focus groups (11 focus groups in total) were conducted with provincial TLLP teams in the OTF and Ministry of Education to learn about the overall successes and challenges of the program from the point of view of the individuals at the provincial level responsible for the development

and delivery of the TLLP. In 2018, as the Ministry was in the process of transition with a new government; a Ministry focus group was not held during the research period.

The findings are reported in 2014, 2015, 2016, 2017, as well as this 2018 report.

4. Analysis of vignettes written by TLLP project leaders (2013-2016)

To get a better insight into teacher leadership experiences, we asked TLLP project leaders to volunteer to write a 5-10 page vignette about their learning and leadership experience throughout the year of their TLLP project. The following questions were used as prompts: “What did you do?”, “Who did you do it with?”, “What happened as a result?”, “How are you sharing your knowledge?”, “What did you learn?”, and “What did you learn about leadership?”. 39 project leaders wrote a vignette and submitted it to us.

The findings are reported in 2014, 2015, 2016 annual reports.

5. Survey of all previous TLLP teacher leaders from Cohorts 1-7 (2007-2014)

The purpose of the survey is to examine teachers’ experience with TLLP and impact, spread and sustainability of TLLP projects and changes in practice provincially. The survey questions were designed in collaboration with the Ministry of Education and OTF in 2013-2014. The survey was administered in October-November 2014 via SurveyMonkey.com. An invitation letter with a link to the survey was emailed to all former TLLP project leaders (Cohorts 1-7) or 566 recipients. 51 emails bounced back. Out of 515 educators who received the email, 243 completed the survey. In other words, the response rate for this survey is 47%.

The results of the analysis of this survey were reported in 2015.

6. Mini pre-/post-surveys of current TLLP project leaders (2013-2017)

The purpose of these mini surveys is to monitor changes in TLLP participants’ confidence levels in learning, leadership, and practices over the course of the TLLP project year. TLLP project members rated their confidence level in the same five areas before their project starts and after implementing it. In 2013-2014, these items were added to the first and last of the Ministry mini progress surveys. In the following years (2014 through 2017), the confidence survey items were a part of evaluation forms for TLLP May training sessions and November sharing summits.

The findings are reported in 2015, 2016, 2017, as well 2018 reports.

7. Analysis of the Final Reports and Logs of PKE project leaders (2013-2017)

To investigate the nature and potential impact of sharing activities happening in PKE projects, three sources of data were requested and analyzed: 1) proposal summaries for 56 one-year-long PKE projects, 2) 25 Final Reports for PKE projects, and 3) 29 sharing logs voluntarily submitted by PKE project leaders. The information from the first two sources was used to describe the projects: types of boards involved, project budget sizes, and project topics and themes. The information from the last two sources was used to investigate the nature and impact of the PKE-related sharing activities. At the beginning of the project cycle, PKE project leaders were provided with a log template and were requested to use it to track PKE-related sharing activities and their impact and submit the log after the completion of the projects.

The findings are reported in 2016, 2017, and this 2018 reports.

8. Case studies of 3 TLLP/PKE projects

The research methods included observations of learning sessions, interviews with teachers, school administrators, school board administrators, the TLLP/PKE team and review of project documentation and online resources.

The findings were reported in 2014, 2015, 2016 and 2017.

9. Analysis of TLLP online and social networking activity through the Mentoring Moments NING forum (2013-2016)

We conducted annual reviews of monthly Google Analytics data as well as the analyses of the interactions and exchange of materials on the Mentoring Moments NING, an official TLLP online sharing forum, between 2013 and 2016.

The findings were reported in 2014, 2015, and 2016 annual reports. The overall summary is reported in this 2018 report.

10. Case study of TVO *TeachOntario* (2015-2017)

With additional funding support from the Ministry of Education, it was agreed that the TLLP research would extend to include a case study of Television Ontario's *TeachOntario* online platform in 2015-16 and 2016-17. The case study is the examination of how the platform has supported

TLLP educators during its beta testing as well as since its official launch on March 31, 2016. We reviewed Google Analytics data, analyzed the nature and patterns of interactions, and conducted a focus groups and interviews with the forum participants.

The case study was reported in 2016 and 2017 reports.



Ontario Teachers' Federation

Suite 100, 10 Alcorn Avenue
Toronto, ON M4v 3A9

416.966.3424, 1.800.268.7061
FAX 416.966.5450

www.otffeo.on.ca