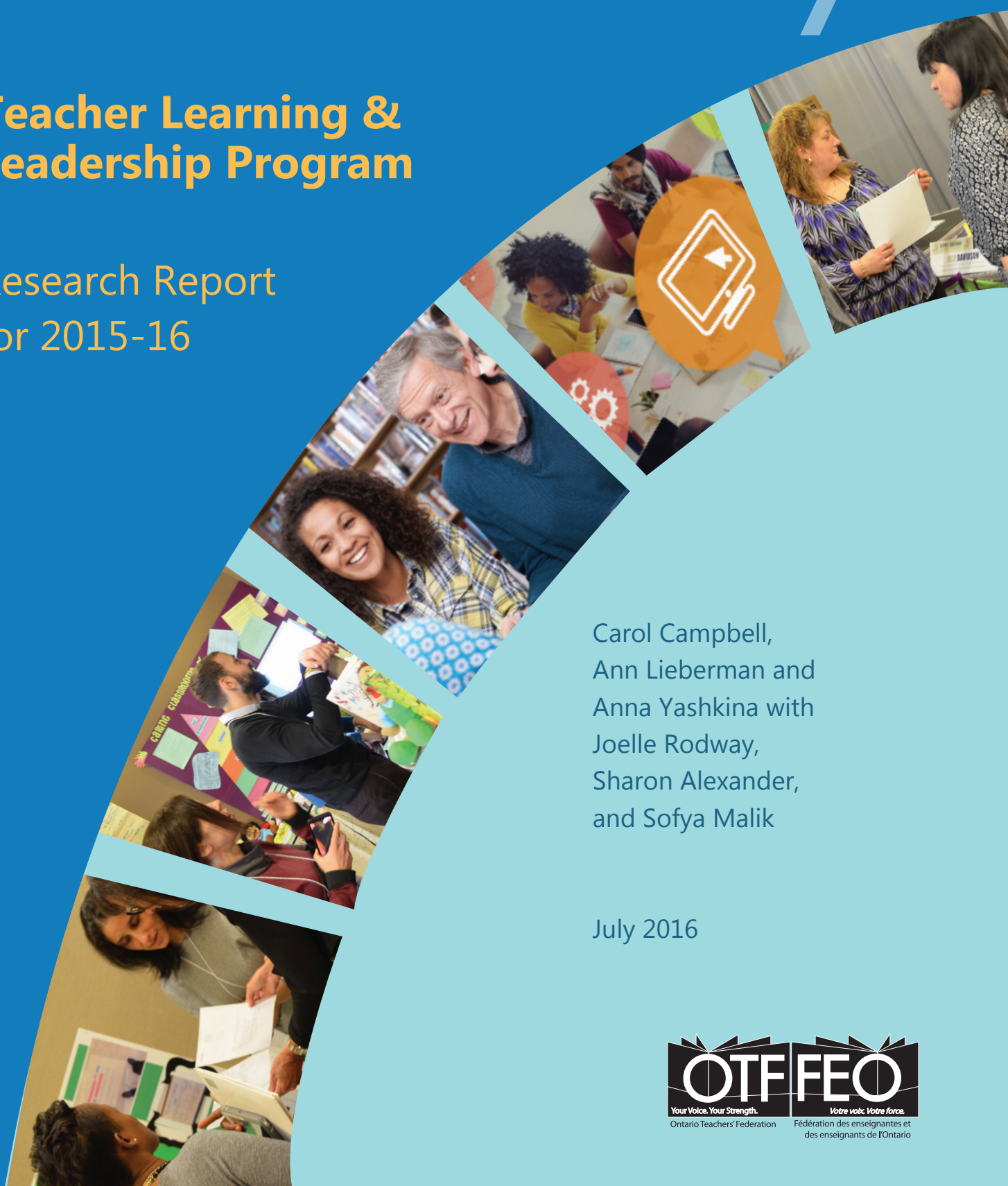


# Research Report

## Teacher Learning & Leadership Program

2015-2016



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# The Teacher Learning & Leadership Program

## 1. Overview of Teacher Learning and Leadership (TLLP) Program Research

Launched in 2007, the Teacher Learning and Leadership Program (TLLP) is a joint initiative through partnership between the Ontario Teachers' Federation (OTF) and the Ontario Ministry of Education 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.

Following completion of our initial research study of the TLLP (Campbell, Lieberman & Yashkina, 2013), we were invited by the Ministry to submit a proposal for a longitudinal study, beginning in 2013-14. We provided a report of findings and work progress during 2013-14 (Campbell et al., 2014) and 2014-15 (Campbell et al., 2015). This report provides an update on research conducted and findings emerging during the 2015-16 year.

### 1.1 Research Questions

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The research questions for the current study are:

1. What are the impacts of TLLP projects on:
  - a. Teachers' professional learning (TLLP teacher leaders, TLLP project teachers, teachers beyond TLLP project)?

- b. Teachers' knowledge, skills and practices (TLLP teacher leaders, TLLP project teachers, teachers beyond TLLP project)?
  - c. Teachers' leadership skills and experiences (TLLP teacher leaders, TLLP project teachers, teachers beyond TLLP project)?
  - d. Other adults affected by the TLLP projects (school and district staff, school and district administrators, parents, community members, others as relevant)?
  - 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 (for TLLP teacher leaders, for TLLP project team members, for schools, for districts and for other participants affected)?

## 1.2 Methods

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The research methods conducted during 2015-16 were:

1. TLLP projects in cohorts 7-8: Application data and final reports
2. Mini surveys of TLLP teacher participants' experiences during their TLLP
3. Vignettes written by TLLP Teacher Leaders

4. Observations of the Leadership Skills for Classroom Teachers training and Sharing the Learning Summit
5. Analysis of NING data for 2015-2016
6. Provincial Knowledge Exchange (PKE) logs and final reports
7. Case studies of TLLP/PKE projects
8. Case study of TeachOntario
9. Focus groups with provincial TLLP team in Ministry of Education and Ontario Teachers' Federation

In the sections below, we detail and discuss the findings from each of the above methods.

## 2. Findings

### 2.1 TLLP Projects Cohorts 7 and 8: Analysis of Approved Projects and TLLP Final Reports

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All teachers receiving funding for a TLLP project must complete a TLLP Teacher Participant Final Report Form using a standard template format plus supporting evidence. We proposed to update the analysis of TLLP cohort data for approved projects and for Final Reports by examining descriptive data about applications approved and from analyzing a 20% sample of Final Reports for cohorts 7 and 8. The sampling, coding and analyses of Cohorts 7-8 data were consistent with the procedures developed for the Cohorts 1-6 data (Campbell, Lieberman & Yashkina, 2013; Campbell et al., 2014). We also used a similar reporting format and make comparisons across all the cohorts where it was possible and/or of particular interest.

#### 2.1.1 Methods and Sample

First, we conducted a descriptive analysis of all TLLP approved projects in Cohorts 7 and 8, involving a total of 221 projects.



Table 1: Total Number of TLLP Final Reports (2013-2015)

Cohort	English Public	English Catholic	French Public	French Catholic	English/ French	Public/ Catholi c	School Authorities	Total
Cohort 7	50	48	3	4	98/7	53/52	1	106
Cohort 8	58	45	2	8	104/9	60/53	2	115

Second, using the sampling criteria developed previously (Campbell, Lieberman & Yashkina, 2013); we selected a purposive sample of 20% of the final reports (total of 44 projects) for more in-depth analysis of the projects undertaken and the reported successes, challenges and overall impacts. The sampling criteria included: representative distribution across English Public, English Catholic, French Public, French Catholic, and School Authorities; elementary and secondary schools; regional distribution; size of project in terms of dollars and also in terms of people on teams; and range of types of project theme.

**Board Type:** All types of boards are represented in the sample (see Table 2).

Table 2: Sample TLLP Projects by Board Type

Sample	Cohort 7	Cohort 8	Total
English Catholic	9 out of 48	9 out of 45	18 out of 93
English Public	9 out of 50	11 out of 58	20 out of 108
French Catholic	1 out of 4	1 out of 8	2 out of 12
French Public	1 out of 3	1 out of 2	2 out of 5
School Authorities	1 out of 1	1 out of 2	2 out of 4
TOTAL	21 out of 106	23 out of 115	44 out of 221

**Region:** All regions of Ontario are represented in the sample. All regions are represented in each Cohort. In total, there are 10 projects from London, 8 from Ottawa, 7 from Barrie, 7 from GTA, 6 from Sudbury, and 5 from Thunder Bay.

**Project Size:** The sample for each cohort includes projects of all TLLP team sizes (single person, small, medium, and large team), ranging from 1 to 61 people (see Table 3); and all budget sizes (low, average, and high), ranging from \$2,875 to \$87,970 (see Table 4).

Table 3: Sample TLLP Projects by TLLP Team Size

Team size	Cohort 7 21 projects	Cohort 8 23 projects	Total 44 projects
Single (1 person)	1	2	3
Small team (2-4 people)	12	14	26
Medium team (5-10 people)	7	6	13
Large team (>11 people)	1	1	2

Table 4: Sample TLLP Project by Budget Size

Budget	Cohort 7 21 projects	Cohort 8 23 projects	Total 44 projects
Small ( $\leq \$10,000$ )	6	4	10
Medium ( $\$10,000 < X \leq \$50,000$ )	14	17	31
Large ( $\geq \$50,000$ )	1	2	3

**Panel:** Both types of panels as well as cross-panel projects are represented in the sample for each Cohort (see Table 5).

Table 5: Sample TLLP Projects by Panel

Panel	Cohort 7 21 projects	Cohort 8 23 projects	Total 44 projects
Elementary	14	16	30
Secondary	5	5	10
Cross-panel	2	2	4

**Themes:** There is a good representation of various themes in the sample (see Table 6). The most common one is Technology. TLLP projects investigated and utilized multiple technologies such as iPads, SMARTboards, iPad apps, video and audio recording and sharing, online learning environments, and blogging, for example.

In addition, we have identified two new themes in the analysis of Cohort 7 and 8 data. These are:

- **New Pedagogies** – which refers to new approaches to teaching and learning such as inquiry-based learning, collaborative learning, problem-based learning, game-based learning, authentic and hands-on learning; and
- **Community/Parent Engagement** – which refers to establishing links with families, engaging parents, educating parents, and developing partnerships with community organizations.

Table 6: Sample TLLP Project Themes (as identified by the TLLP leaders and researchers)

Theme	Cohorts 7 & 8 44 projects
Technology	23
PLC	17
Differentiated Instruction	16
Literacy	14
Student Assessment	10
New Pedagogies*	9
Student with Special Needs	8
Math literacy	8
Student Success/Transition years	7
Media literacy	5
Safe Schools	5
Arts	4
Community/Parent Engagement*	4
French	3
Equity	3
Gender-Based Learning	1

\* Themes identified by the research team

Each project in Cohorts 7 and 8 submitted a Teacher Participant Final Report including project information, project goals and successes, professional learning, project sharing, leadership, challenges, and projected learning and impact beyond the TLLP funding. The Final Report form changed from previous years. First of all, a new section on leadership was added. This addition allowed project leaders to reflect on their leadership growth and provided us with a better understanding of TLLP's impact on teachers as leaders. Second, some of the sections that used to contain only open-ended questions changed into sections with a mix of close-ended questions and comment fields. This changed the

nature of the information provided; while it became more consistent on the items that were listed as response options, the information on the non-listed items was poor or missing (in other words, TLLP participants selected the given response options that applied to their situation but very few selected the “Other” option and provided explanation). The changes in the report form had a slight influence on the way the data was analyzed and will be reported. However, in general, the data coding, analysis, and reporting are consistent with previous research and comparisons across all the Cohorts were made where possible and/or of particular interest.

## 2.1.2 Findings

### 2.1.2.1 Project Description: All Projects in Cohorts 7 & 8 (2013 – 2015)

We conducted a descriptive analysis of all 221 Final Reports from Cohorts 7 and 8 to examine how many projects were undertaken and in which education system, in which panel, what was the project size (in terms of project team and budget sizes), and what were the main project themes. We report results of the analysis of Cohorts 7 and 8 projects alongside previously reported results for the first six Cohorts to allow for comparison and further analysis.

#### *Education System*

As

indicated in Table 7, a total of 687 projects were conducted during the first eight TLLP cohorts. In recent years, the number of funded projects increased significantly. Projects have been funded across the publicly funded education systems in Ontario. The majority of TLLP projects have been in the English sector; whereas the number of French sector projects is significantly smaller.

Table 7: Cohort 1 – 8: Total Approved Projects by Education System

Cohort	English Public	English Catholic	French Public	French Catholic	English/French	Public/Catholic	School Authorities	Total
Cohort 1	42	30	1	3	72/4	43/33	3	79
Cohort 2	35	28	1	5	63/6	36/33	0	69
Cohort 3	32	31	3	6	63/9	35/37	2	74
Cohort 4	41	28	4	4	69/8	45/32	3	80
Cohort 5	42	36	2	4	78/6	44/40	2	86
Cohort 6	37	37	0	2	74/2	37/39	2	78
Cohort 7	50	48	3	4	98/7	53/52	1	106
Cohort 8	58	45	2	8	104/9	60/53	2	115
Total	337	284	16	35	621/51	353/319	15	687

### *Panel*

This is the first time we were able to analyze the panel information for all projects. The majority of the projects in Cohorts 7 and 8 are elementary panel projects – 147 projects (67%); 48 projects (22%) are secondary panel; and 22 projects (10%) are cross-panel projects.

### *Project Size*

The projects ranged considerably in size, in terms of the number of people involved in the project team as well the size of the project budget. In Cohorts 7 and 8, the number of people on each team ranged from 1 to 61. There have been some changes to the size/structure of a TLLP project team observed. The number of single-person projects has reduced (from 17% of all projects in Cohorts 1-4 and 13% in Cohorts 5-6, to 5% in Cohorts 7-8); while the number of larger team projects (5-10 people) has significantly increased (from 10% in Cohorts 1-6 to 30% in Cohorts 7-8). Small team (2-4 people) projects, however, are still the most popular at 61% of all projects.

As outlined in Table 8, the total number of direct participants has increased recently. The average number of people on a team has increased slightly as well (from 4 people in Cohorts 1-6 to 4.2 people in Cohorts 7-8). It is important to note these numbers of TLLP participants refer to identified TLLP group applicant members. This does not include the much wider array and number of people potentially affected by a TLLP project.

According to Table 8, the overall expenditure on TLLP projects has increased greatly, with Cohort 8 reporting the highest level of expenditure compared to previous cohorts. The average project budget has increased significantly as well (from \$14,412 in Cohorts 1-6 to \$21,224 in Cohorts 7-8). While the amount of smaller budget projects ( $\leq$ \$10,000) has decreased (from 32% in Cohorts 5 and 6 to 15% in Cohorts 7 and 8), the amount of larger budget projects (\$10,001 - \$49,999) has increased (from 67% to 79%). Eight projects (4%) had a budget over \$50,000 in Cohorts 7 and 8.

Table 8: Cohort 1 – 8: Total Approved Projects by Project Size (Number of People on the Team and Budget Size)

Cohort	People Sum	People Average	\$ Sum	\$ Average
Cohort 1	158	2	\$982,051	\$12,341
Cohort 2	406	5.9	\$818,006	\$11,855
Cohort 3	350	4.7	\$1,125,308	\$15,207
Cohort 4	342	4.3	\$1,257,925	\$15,724
Cohort 5	373	3	\$1,231,079	\$14,315
Cohort 6	255	4.8	\$1,301,929	\$16,691
Cohort 7	481	4.5	\$1,953,921	\$18,433
Cohort 8	513	4.5	\$2,736,613	\$23,797
Total	2,878	4.2	\$11,406,832	\$16,604

To sum up, the size of an average TLLP project has increased both in terms of people on the TLLP team and the dollars allocated to project budgets.

### *Project Themes*

TLLP projects include a range of priority themes with projects generally including multiple themes and areas of activity. Over time, the OTF and Ministry have asked TLLP teacher leaders to self-identify up to three main themes of their projects. Table 9 indicates the most prevalent project topic themes. Overall, differentiated instruction and technology have been the most prevalent areas of foci. Nevertheless, there have been some shifts over the cohorts. The number of projects on technology has increased greatly (three times of those in Cohorts 1 and 2). The numbers of PLC and Math Literacy projects have grown as well. Two new themes – Safe Schools and Equity – were recently added to the application forms.

Table 9: Cohort 1-8: Total Approved Projects by Project Theme (Rank Order)

Theme\Cohort	1	2	3	4	5	6	7	8	Total #	Total % of 687
Differentiated Instruction	26	17	34	33	42	38	58	50	298	43%
Technology	22	19	29	23	37	41	51	67	289	42%
Literacy	38	22	21	15	26	26	29	24	201	29%
PLC	27	25	20	16	23	22	34	33	200	29%
Math literacy	11	15	11	14	19	17	28	34	149	22%
Student Assessment	18	14	20	13	14	19	25	25	148	22%
Student with Special Needs	10	9	9	7	13	13	10	11	82	12%
Student Success/ Transition years	5	6	13	10	10	7	12	14	77	11%
Media literacy	4	5	2	5	10	5	7	4	42	6%
French	3	7	5	2	8	3	8	4	40	6%
Arts	1	5	6	6	5	3	7	3	36	5%
Gender-Based Learning	4	5	5	7	2	2	1	0	26	4%
Safe Schools	-	-	-	-	-	-	2	4	6	1%
Equity	-	-	-	-	-	-	-	5	5	1%

During the analysis of the sample of Final Reports, two new themes were identified: New Pedagogies and Community Engagement. We suggest adding these themes to the list of themes in the Final Report form.

### 2.1.2.2 Professional Learning in the TLLP: Sample Projects from Cohorts 7 – 8

We conducted a thorough analysis of Final Report Forms (along with Project Summaries and Project Proposals to obtain missing information) of the sampled projects in Cohorts 7 and 8. In this section we present the results regarding professional learning goals, professional learning activities, and sharing of knowledge and practices beyond the immediate TLLP team. The statistics reported in the Tables below are based on the mix of the emerging themes in qualitative data and quantitative data reported in Final Reports, and thus should be interpreted with caution. The prominence of the themes derived from qualitative data might be underestimated, since project leaders might not have thought to include information regarding those themes in their Reports. Therefore, it is possible that the information provided in the Final Reports does not present all of the activities that took place.

### Professional Learning Goals

Since TLLP participants are no longer required to state their project goals in their Final Report forms, we acquired the information on professional learning goals from Project Summaries and Project Application Proposals. The analysis of the relevant data helped identify several common professional learning goals, which are reported in Table 10.

Table 10: Sample Projects: Stated Professional Learning Goals (Rank Order)

Professional Learning Goals	Projects	
	#	%
Improve understanding/knowledge	29	66%
Develop strategies/approach	29	66%
Develop/improve skills/practices	26	59%
Develop resources	19	43%
Develop professional collaboration	10	23%

Consistent with previous research, the top three professional learning goals for the TLLP projects in Cohorts 7 and 8 were to develop and improve understanding and knowledge (66% of projects), develop strategies or an approach (66%), and develop or improve skills or practices (59%). 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 instructional, assessment, or technological skills.

Goals for developing resources (stated in 43% of projects) included creating resources for classroom use, for training or informing others, or for sharing. Examples of such resources are lessons, activities, recommended apps, demo videos, and teacher toolkits. Developing professional collaborations between educators within and across divisions, panels, schools, and other stakeholders was a goal of 23% of projects. This number is significantly lower than the ones reported previously (42%). A possible explanation (based on qualitative data in Final Reports) is that professional collaboration had already been in place before the start of the project and thus, while almost all (if not all) projects engaged in some kind of professional collaboration during the course of the project, they did not set it as their goal. Examples of goals for collaboration included professionals working together to develop activities and strategies for inquiry-based approach, or to support transitions from secondary school to college. Less common professional learning goals included connecting with families and communities (4 projects) and developing leadership skills and experiences (3 projects).



### *Professional Learning Activities*

Unlike in previous years when the Final Report's question about undertaken professional learning activities was open-ended, this question currently offers multiple response options. The quantitative data from this multiple-choice question composes most of the statistics found in Table 11. The themes marked with an asterisk were added by the researcher team and are based on the qualitative data from the reports. All other themes are the items listed as the response options to the professional learning activities question.

The TLLP participants engaged in a number of professional learning activities during the course of their project (see Table 11). By far, the most common activity was teacher collaborative learning. In 95% of projects, educators engaged in some kind of collaborative learning to acquire new knowledge or skills or to develop new strategies or resources. This number is even higher than previously reported (85%), which can be explained by the increase in the number of team projects and/or the change in the nature of reported data. Collaborative inquiry, Professional Learning Community (PLC), and community of practice were the most common collaborative learning activities, with the majority of the projects engaged in them. One of the project leaders commented on the power of collaborative learning:

*What I realized through this journey is that I can support my colleagues with the experience and knowledge that I have attained through simply collaborating and co-learning. Not only am I able to share my knowledge and learning, but by listening to their experiences and challenges, I can further develop my own teaching practice.*

Table 11: Sample Projects: Professional Learning Activities (Rank Order)

Professional Learning Activities	Projects	
	#	%
<b>Teacher collaborative learning*</b>	42	95%
• Collaborative inquiry	35	80%
• Professional Learning Community	30	68%
• Community of practice	27	61%
• Observation with colleagues	21	48%
• Lesson study	10	23%
• Study group	2	5%
<b>Literature reviews/Research</b>	30	68%
<b>Conferences</b>	25	57%
<b>Online learning</b>	21	48%
<b>Working with content experts</b>	18	41%
<b>Training*/Courses</b>	14	32%

\* Themes added by the research team:

\*Teacher collaborative learning is a composite measure based on the six items from the multiple-choice list;

\*Training is training opportunities other than courses mentioned in the Reports.

Collaboration happened outside the school system as well. At least 7 projects engaged in networking and collaborating with external experts, community organizations, families and other stakeholders online and offline. For example, a leader of a project aiming to improve students' oral communication skills compared her networking experience with numerous professionals through TLLP with the multi-disciplinary patient care approach used by health care professionals:

*Through participation in the TLLP, we were able to network with other staff and professionals in the community and beyond. The TLLP enabled us to work with the local university school of education, speech language therapists, app software developers, OG teachers and other special education teachers.*

Sixty-eight percent of the projects in the sample referred to literature and research to improve their knowledge and understanding of the topic, which is similar to what was reported in previous cohort analyses (Campbell et al., 2014).

To increase their level of knowledge and/or to gather ideas and make connections, over half of the projects in the sample sent one or more of its members to attend a conference on the topic of interest and about a third of the project provided its member(s) with some kind of training, such as courses or workshops. In 18 projects, TLLP leaders chose to learn directly from or with an expert/specialist in the area such as a professor, a researcher, a board consultant, a technology expert, or a local artist. Twenty-one projects in the sample indicated engaging in online learning but the nature of this learning

was not specified. This online learning activity can be a part of other learning activities such as browsing internet for relevant literature and sources of information, or engaging in networking and collaborating online. It would be helpful to ask for explanation on the report form of the specific type of online activities.

### Sharing of Knowledge and Practices

The TLLP requires its participants to share their learning beyond the immediate TLLP project team. Table 12 present the results of the analysis of the multiple-choice question on the scope of sharing. Our analysis indicates that the vast majority of TLLP projects shared learning and spread practice within their own schools (82%) and with other schools/educators in their school board (91%). There is a slight increase in the number of projects sharing their learning across schools, compared to previous years. In 23% of the projects in the sample, the exchange of learning also happened between school boards when the participating school board shared strategies and approaches with another board that was already implementing similar strategies or was interested in doing so. Eight projects indicated sharing their learning and practices beyond their immediate educational community. Such sharing happened via presentations at provincial and international conferences, networking with schools from other provinces and countries online, collaborating with various community agencies, and meeting with delegates from other jurisdictions. We would like to add that sharing with the larger educational community happened in many more projects through sharing of information and resources online via Social Media, blogging, and project websites, among other means.

Table 12: Sample Projects: Level of Learning Sharing

Level of Sharing	Projects	
	#	%
Within own school(s)	36	82%
Within own school board	40	91%
With other school boards	10	23%
Other <sup>1</sup>	7	16%

<sup>1</sup> Sharing beyond neighboring schools and school boards happened in many more projects through means of online communication which will be discussed further.

The project leaders were asked to estimate the number of educators they shared their learning with in person and online. 39 reports provided estimates for face-to-face sharing: the numbers ranged from 5 to 500, with an average of 90 people. The wide range in the estimates may be explained by the size and sharing goals of the project, the nature of sharing (mentoring vs. conference presentations) and the way the estimates were made. There were only 12 estimates for online sharing and the range was even wider, from 3 to 1000s of people. Generally, those who indicated smaller numbers calculated

direct contacts (more close collaborative relationships) while those who provided higher estimates used website/blog visit statistics.

Knowledge exchange involves consideration of audience. In all projects in the sample, the main audience for sharing was teachers, which was expected and is consistent with the goals of the program. TLLP teacher leaders also reported sharing with school administrators, in some cases with the hope they would spread the word of innovation within their schools. Many also shared with district administration: supervising officers, various board consultants, and trustees. Some projects shared their learning with parents and community partners. We believe that supporting and encouraging TLLP participants to think about a wider audience can be beneficial for developing TLLP teachers' leadership and practices as well as for influencing and sharing learning and practices locally and beyond.

To make sharing of learning and practices more useful for others, numerous resources were developed, adopted, researched, and acquired during the process of the TLLP project. Examples of these resources are lessons, lesson plans, a planning tool, training/demo videos, activities and materials for classroom use, a list of suggested apps, a library of math games, and an online course. Teacher/school toolkits were compiled and distributed online and physically in 19 projects (43%). Multiple written resources were shared in 22 projects (50%).

Various methods were used to share learning and resources. Table 13 contains main methods used in Cohorts 7 and 8. The most common method of sharing was a workshop; workshops were organized in 84% of projects. More intimate sharing methods such as working with teachers in their classroom (70%), staff meetings, collaborative learning in smaller groups, and one-on-one mentoring (through email and in-person communication) were also utilized in a number of projects.

In 41% of the projects, to reach far and wide, many TLLP members presented at board-level, provincial (e.g. Ontario Library Association SuperConference), and international conferences (e.g. EdTechTeam Global Summits Featuring Google for Education); the same proportion of projects (41%) blogged about their learnings, and/or spread a word about their project via Social Media (Twitter, FaceBook, Instagram). Twenty-three percent of TLLP projects shared their journey and useful resources on a project website. The number of projects sharing their learning and resources online increased recently with 73% of projects reporting using one or more means of online sharing, compared with 55% in Cohorts 5 and 6. Besides blogging, using Social Media, and developing project websites, TLLP members shared via online learning platforms such as Google Apps for Education, Desire2Learn, and district portals, as well as via online conferencing and webcasting. While some of the online methods were initially created for

sharing within the immediate project team or school, they were later used for sharing openly with others outside of school. For example, one project described using their project blog as a means of sharing:

*Once the Technology Learning Community blog was created we established a community hub for the teachers in our project group. Our hub was designed as a space not only for us to share content within our group, but for teachers in our group to share their learning stories with the greater community. It was not long after our community was established and we began sharing, that other teachers reached out to us through the community to get involved. As a result, teachers were learning to share, reflect, network, and join us on our learning journey. ... Our Technology Learning Community blog is a collection of resources, communications, collaborations, reflections and creative products of our learning. It is our collective digital portfolio.*

Several projects also attempted sharing their knowledge with the local community online or by organizing various community events, distributing newsletters, and giving interviews to a local radio, TV station, and a newspaper. For one project that focused on the use of visual arts by students with special needs, community events were the most important sharing activities they engaged in:

*Although we have shared our learning many different ways, the most significant impact from our sharing likely came during our interactive community events such as the Accessible Art Experience at the Rotary Fun Day and at our Art Festival at the end of the year. At these events we were able to connect with parents, educators, staff from our school and Centre, board members, media, and interested community members. Feedback in all instances was so positive and enthusiastic and was shared widely on social media sites such as Facebook and Twitter. To be able to talk about our learning while also showcasing the materials, equipment, strategies, and art pieces compiled throughout our project was a highly effective way to demonstrate our learning.*

The Final Report form provided space for comments on sharing-related learning. One of our favourite quotes speaks to the importance of sharing and its impact on both the audience of sharing and the facilitators:

*We learned that sharing is not in addition to the work - it is the work. The value of sharing our learning with others provided motivation, engagement, direction and support for others who wanted to join us in learning... Although our hub was originally*

*designed as a space for us to share content with our group and for teachers in our group to share their learning stories with one another, the benefits of collaborating and sharing with an even larger community of learners was inspiring! As more teachers joined our community, more ideas were shared, more reflections were documented, more relationships were established, and more learning was happening!*

Table 13: Sample Projects: Methods of Learning Sharing (Rank Order)

Method for Sharing	Projects	
	#	%
Workshop	37	84%
Online*	32	73%
• Blogs	18	41%
• Social Media	18	41%
• Project website	10	23%
• Online educational platform*	5	11%
• Video conferences	4	9%
• Webcasts	3	7%
Working with other teachers in their classroom	31	70%
Conference presentation	18	41%
Collaborative learning*	13	30%
Staff meeting*	6	14%
Community event*	4	9%
Mentoring*	3	7%
Mass Media*	2	5%

\* Themes added by the research team:

- Online is a composite measure based on the five items from the multiple-choice list and other online sharing opportunities mentioned in the Reports;
- Online learning platform, Collaborative learning, Staff meeting, Community event, Mentoring, Mass Media are themes derived from the qualitative data in the Reports. The prominence of these themes might be underestimated.

### 2.1.2.3 Impact of the TLLP: Sample Projects from Cohorts 7 – 8

In this section, we present the results of the analysis regarding impact of the program on TLLP participants as teachers and as leaders. In addition, we will also discuss the impact on other adults, students, and schools.

### Impact on Participants as Teachers

Table 14 outlines main themes on the impact of the program on participants as teachers (previously called teacher learning benefits). The themes were derived from the analysis of the qualitative data in the sample of 44 Final Reports.

Table 14: Sample Projects: Impact on Participants as Teachers (Rank Order)

Impact on Participants as Teachers	Projects	
	#	%
Improved knowledge and understanding	39	89%
Improved teaching practices	39	89%
Improved collaboration skills/practices	27	61%
Increased self-efficacy	20	45%
Improved technological skills	18	41%
Inspiration/enthusiasm	13	30%

The outcomes of the program on the TLLP participants as teachers (or any other kind of outcomes) were overwhelmingly positive. The top identified outcomes were new/improved knowledge/understanding and improved instructional and assessment practices. In 89% of the projects, TLLP project participants acquired new or improved their knowledge/understanding regarding some specific area of subject or curriculum or a particular approach or strategy, such as use of math games, or regarding teaching and learning in general. 89% of projects reported improvement in participants' instructional and assessment practices. The degree of changes in teaching practices varied. In some cases, teachers were able to step back and see their "teaching style/approach through a different lens", and in other cases, teachers' established approaches to teaching and learning were completely overhauled by the newly acquired learning and understanding. For example, in one project on technology integration, the project leader commented on the changing roles of teachers and students during the project:

*Teachers and students were learning how to use technology together - supporting each other throughout the process of learning... Our role as teacher was evolving, and the role of the learner was changing too. Teachers on our project team have become facilitators, collaborators, questioners, critical cheerleaders, motivators, and creators of opportunity. And our students have become knowledge builders, questioners, problem finders and problem solvers, collaborators, and creators as they continue to develop into more digitally literate global citizens.*



TLLP teacher leaders reported improvements in other areas related to teaching and learning such as technological skills (e.g. using iPads, SMARTboards, iPad apps, video and audio recording and sharing, online learning environments, blogging, Social Media), classroom management practice, and planning practices.

Improved professional collaboration among and between educators was another main outcome for TLLP participants in the majority of the projects. TLLP participants learned to value collaboration and became better collaborators. One of the Final Reports speaks to the value of collaboration:

*We have a much better appreciation and understanding of the value of collaboration. We have experienced first-hand how collaborating as a group and following an inquiry-based model for teaching and learning provided even more enriched opportunities for learning that were often spontaneous and deeper than what might have been originally planned.*

An enhanced professional confidence and sense of self-efficacy was also an important teacher learning benefit reported in 45% of the projects. Program participants felt more confident as teachers, technology users, collaborators, and learners.

Teachers' attitude to teaching has also changed. In at least 30% of the projects, teachers felt excited to teach again, inspired to take risks, 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 has helped them "get re-energized" and out of their "stuck thinking".

All of the projects in the sample used multiple formal and informal techniques to measure their learning and progress. In almost all projects (43 out of 44 projects) dialogue with colleagues was used to help reflect on personal and or/group learning. In 40 projects, feedback from colleagues, students, and/or parents served as a measure of teacher learning. In 61% of the projects, TLLP participants kept reflective journals to monitor their learning. More formal measures were used as well, such as surveys (61%), student assessment (48%), and portfolios (23%). In some projects, photos, videos, and work samples were used as evidence of professional growth and its effects.

Comparing to Cohorts 1-6, we found that in Cohorts 7 and 8 the number of TLLP projects undertaking formal and other approaches to monitoring their learning increased. We recommend that the provincial TLLP partners continue emphasizing the importance of these attempts via continuing to emphasize monitoring and reporting in TLLP Leadership Skills for Classroom Teachers sessions and in Ministry reporting procedures.

### *Impact on Participants as Leaders*

Fostering teacher leadership is one of the TLLP's overarching goals. However, the original TLLP Final Report form did not specifically ask about teacher leadership. Based on our previous recommendations, the TLLP Final Report has been revised to include a section on teacher leadership. Starting with Cohort 7, the Final Report form includes a separate section on Teacher Leadership. Project leaders are requested to identify the key areas of teacher leadership they learned about throughout the project (a multiple-choice question) and describe the program's impact on them as teacher-leaders (an open-ended question). Table 14 presents the results of the analysis of the first question.

We are pleased to report that all of the projects in the sample indicated TLLP participants' growth in multiple leadership areas. Most common areas of growth (reported by more than three quarters of the projects) were related to managing a project, organizing and facilitating adult learning and knowledge sharing, collaborating and sharing leadership. There were a lot of comments regarding learnings in the area of facilitating adult learning throughout the reports. Some learned how to better engage adult learners in collaborative learning:

*We have learned the importance of differentiating for our group to increase engagement and participation. Engagement is key! Providing a variety of learning activities, flexible groupings, and partnerships within schools and between schools, gives teachers voice and choice which again improves the quality and quantity of contributions that are made. Creating a shared flexible agenda that allows for input and ideas from the group again increased engagement, participation, as well as the quality of conversations, collaborations, and ideas shared.*

Others learned how to get others to attend their training and sharing sessions:

*When you approach people in person about attending a learning session, they are more likely to attend. If you offer the learners "something they can start using today", they are more likely to attend.*

Table 15: Sample Projects: Areas of Leadership Growth (Rank Order)

Areas of Leadership Growth	Projects	
	#	%
Communication	37	84%
Facilitating sharing of learning	37	84%
Administrative skills	36	82%
Facilitating adult learning	36	82%
Collaborative decision making	35	80%
Organizational skills	35	80%
Collaborative problem solving	34	77%
Presentation skills	33	75%
Project management	33	75%
Empowering others	31	70%
Listening	30	68%
Building trust	28	64%
Debriefing	25	57%
Team building	25	57%
Co-teaching	19	43%
Managing the change process	18	41%
Research skills	17	39%
Conflict resolution	14	32%
Mentorship	14	32%

Other relevant leadership learning experiences mentioned in the reports included:

- gaining confidence to share, present, and provide expertise:

*The TLLP has allowed me to gain confidence as a presenter and as an "expert" who has something valuable to share;*

- creating leadership opportunities for others:

*Creating opportunities for shared leadership roles within the group at each meeting added a level of accountability that improved the conversations about the work, as well as the products of work that were shared.*

- distributing leadership and utilizing strengths of the team members:

*As a teacher leader I have learned to come up with an idea together and delegate to those who have the best skill for the job required as I cannot do everything myself. I delegated roles based on the gifts and skill set of each individual involved in the process to utilize their strengths and making the process seamless.*

The findings and examples presented above confirm TLLP's positive influence on teacher leadership.

### *Impact on Other Adults*

Our analysis of the sample of Final Reports identified several benefits of sharing learning from the TLLP project with a wider group of people, as outlined in Table 16. It is important to remember that Table 16 refers to explicitly listed benefits in the Final Reports.

The impact on other adults varied from project to project depending on the nature of the project and the goals and the nature of sharing activities. While some projects were able to generate a “buzz” and expected more impact to happen in the future, others were already able to evidence the effect of their sharing on their colleagues’ practice and even on students of those colleagues. For example, the project leader whose goal was to develop an online course reported on others teachers and students whose teachers use the course content benefiting from it:

*Teachers using the Moodle based Careers course are finding that their students are more focused, organized, and successful compared to the traditional way of teaching the course. In addition, these teachers are reporting that they spend less time photocopying, lesson planning, locating resources, creating overheads, etc. now that they are using our Moodle course. The parents of their students have provided much positive feedback in terms of them being aware of course content, tests, quizzes, projects, assignments, deadlines, etc. Also, these teachers actually incorporating this new technology into their classroom, proves that we have created an easy to use teaching tool and have provided them with successful training. In addition, teachers feel comfortable approaching us for additional support.*

The main benefit of the TLLP for other adults is improved knowledge and understanding, which was reported in almost 68% of the projects in the sample. Fifty-two percent of the Final Reports 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:

*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.*

Table 16: Sample Projects: Impact on Other Adults (Rank Order)

Impact on Other Adults	Projects	
	#	%
Improved knowledge and understanding	30	68%
Inspired to make a change	23	52%
Change in practice	19	43%
Increased self-efficacy	10	23%

Forty-three percent of the projects reported that those with whom they shared their learning already started implementing their strategies, tools, and/or resources. In 23% of the projects in the sample, adults who attended TLLP participants' organized sharing and training events felt more confident in the areas of sharing/training. Thus, the value of sharing TLLP-related learning is hard to underestimate. In the words of one project leader, the sharing of learning "provided motivation, engagement, direction and support for others who wanted to join us in learning." Another project leader called sharing "a powerful agent of change:"

*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!*

It is challenging to measure the impact of sharing of learning and practices, particularly beyond the immediate TLLP project team and their school(s). Nevertheless, in our analysis of the sample of Final Reports, 14 projects (32%) explicitly mentioned utilizing some formal measures of the impact of sharing learning. Of those most common were workshop feedback forms or exit cards. There were also surveys of teachers, parents, and students. In several cases, teachers produced evidence of changes in their practice, such as developed artifacts or samples of students' work. At the same time, the majority of the projects seemed to rely solely on non-formal assessments such as personal conversations and personal observations, expressions of further interest via emails, blog comments, calls, and website visit statistics. While these less formal methods might provide less accurate data, they still provide some insight into other adult learning and practice.

When comparing to Cohorts 5 and 6, fewer projects reported undertaking formal approaches to monitoring learning of others, while more projects seemed to use less formal measures. The TLLP leadership team should continue emphasizing the importance of these measures via training sessions and reporting procedures.

### **Impact on Students**

While the TLLP is primarily focused on teachers' learning and leadership, the intended improvements in TLLP participants' professional knowledge, skills and practice are anticipated to also benefit their students: either the entire population of students, which was the case in the majority of projects, or a particular group of students (i.e. students with special needs, at-risk students). It is recognized that TLLP is one of many factors affecting students learning and development and establishing a direct relationship is problematic. Indeed, measuring the relationship between TLLP project activities and outcomes for student learning is complex: while many of the projects involve changes in instruction, assessment, or other teaching strategies, not all the projects are directly focused on achievement measures. Indeed, provincial partners have been careful to caution against teachers attempting to make direct causal claims about changed practice and increases in standard provincial assessment scores through EQAO testing. Following Cohort 1, the TLLP Final Reports no longer have a specific section requiring teachers to identify student learning and achievement measures. However, the Final Report form for Cohorts 7 and

8 requests information on impact of the project on students as a part of another question about the program's general impact on the participant, their students, and school.

Despite the absence of the specific section on student learning in the Final Report form, 36 projects (82%) discussed the impact of the project on their students in at least one section of the report. Among those that did, improved learning skills and experiences and improved engagement, motivation, and attitude were most common, as indicated in Table 17. The following comments speak to the impact of TLLP on students' motivation, engagement, and learning experiences:

*Our students have been engaged in their learning throughout the use of manipulatives and their math journals. Students have taken on an active role in identifying their learning goals and their successes while engaging in critical and effective problem solving. Student learning through inquiry-based learning has provided a positive learning environment that meets the demands of differentiated instruction and learning of individual students. We have witnessed an increase in confidence in our students and a motivation to learn new ways to problem solve.*

In regards to student behaviour, we observed that they became better organized, increased their risk taking, produced higher quality products, became expert learners in sharing their knowledge with their peers, and lastly, were seen to have increased levels of engagement.

Table 17: Sample Projects: Impact on Students (Rank Order)

Impact on Students	Projects	
	#	%
Improved learning skills and experiences	30	68%
Improved engagement and attitude	20	45%
Improved achievement	10	23%
Student leadership	10	23%
Character development/wellbeing	7	16%

In ten projects, improvements in students' achievement and academic areas were observed. Positive changes in student reading, mathematics, oral communication, and other skills were reported. In a project on improving student reading skills with the help of technology, impressive improvements in student reading skills and other areas were observed:

*Most students (especially the older students) participating in the TLLP demonstrated that they are able to think about their reading skills. This improved meta-cognition helped them understand why they are struggling with reading. For example, students have talked about how they need to improve their memory because they can't progress past certain levels in the apps. They seek skills to improve their memory in order to succeed with the app. Another student emailed one of the app developers to tell them that they missed the voiced and unvoiced "th" digraph in one of their apps. This type of discussion would not have been possible without the extra attention and learning provided by participating in the TLLP. One Grade 6 student was interested in what students were doing in the TLLP app study. After explaining to him what the study was all about, he chose to complete his science fair project on the brain and how it works differently in people with reading disorders. He presented his project at the North Bay Regional Science Fair in April.*

In ten Final Reports, project leaders commented on developing student leadership, student voice and student choice by allowing students to be partners and call-makers in determining the direction and nature of their learning and assessment of that learning:

*We relied more heavily on student voice for feedback than originally planned. Our students became a third partner in the project as we were transparent with them about the goals and outcomes. We would often present a "problem" and they would come up with a solution.*

Seven projects reported developments in student character and wellbeing: in particular, in global and digital citizenship as well as in improved discipline, self-control, sense of belonging, emotional intelligence, and artistic side.

Less than half of the projects reported utilizing some measure for monitoring changes in students. It does not mean, however, that only those projects measured impact on students; it means that only those projects discussed the measures in their Final Reports. 43% of the projects in the sample (19 out of 44) reported utilizing some formal measure to monitor student learning and development as well as validate implementation of new strategies/tools. In most of those projects (18 projects), student assessment was used to measure changes in student academic performance. Surveys of student and parents measuring changes in student attitude, knowledge, and skills were used as well. Others used student portfolios or compilation of samples of student work, photos and videos to monitor changes in student learning and behavior. Still others relied on less formal measures such as teacher observations,



anecdotal records, and informal parental and student feedback. It is hard to compare across the Cohorts on the use of student progress measures, considering there is no specific section on students or measures in the TLLP projects' Final Report template. Nevertheless, TLLP teacher leaders should continue receiving advice and support for developing *appropriate* methods for monitoring student learning and development, especially during the initial Leadership Skills for Classroom Teachers training session.

### Impact on Schools

The Final Report form for Cohorts 7 and 8 requests information regarding impact of the project on schools as a part of another question about the program's general impact on the participant, their students, and school. Thirty-nine projects mentioned various school benefits in their reports.

Table 18: Sample Projects: Impact on Schools (Rank Order)

Impact on Schools	Projects	
	#	%
Culture of collaboration	25	57%
Culture of PL and innovation	16	36%
Partnership with parents/community	10	23%
Partnership with other schools	8	18%
Teacher-student relationship	8	18%

In the majority of the projects, TLLP-related activities helped develop or improve the “open-door” or collaborative culture within a division, a department, or a school. A leader of a project that had successfully created professional collaboration of math teachers and instructional coaches across the district 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.*

Development of the culture of professional learning, innovation, and risk-taking was mentioned in 36% of the projects in the sample. Here is one example:

*Our school culture around professional development has improved drastically. Teachers are excited about learning and trying new things. We still have some work to do, but great gains in building school culture have been made.*

*Throughout the year, as students took innovative learning opportunities beyond what was anticipated, teachers began to expect more. This excitement has resulted in an increased willingness of teachers and students to share work, struggles and learning accomplishment.*

Improved relationships with families and community members were reported in 23% of the projects. TLLP projects helped strengthen connections between and across schools and panels in at least eight cases. Eight projects also reported improved relationships between teachers and their students. Other school benefits included development of consistent practices and common language around a particular issue. Development of a stronger community of students, as well as teachers, was identified. In addition, three Final Reports talked about TLLP projects leading to board-wide changes in policies, approaches, and culture. A leader of a project on using technology for learning documentation in Kindergarten described the impact of TLLP on her school and board:

*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, RCCDSB 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.*

#### 2.1.2.4 Challenges Experienced by TLLP Participants: Sample Projects from Cohorts 7 – 8

As with all initiatives – particularly those intended to initiate profound change – challenges were encountered by TLLP participants. Nevertheless, in the majority of the projects in the sample (23 projects or 52%), TLLP project leaders found a way to deal with those challenges and accomplish their goals *fully*; some of them stated that they achieved even more than they planned by learning more, connecting with more people, or getting better student outcomes than expected. At the same time, eighteen projects (41%) achieved their learning goals *mostly* and three projects reported achieving their goals *partially*. Due to various difficulties (e.g. labour unrest, delayed access to technology, change in the project scope) or simply lack of time, these projects failed to fully explore one of the learning goals or had to refocus and change their goals/scope. Encouragingly, not a single Final Report reviewed had “not at all” marked when reporting on the degree of the goal accomplishment.

A number of challenges were mentioned in the Final Reports. The main ones are listed in Table 19. Challenges identified in Cohorts 7 and 8 are similar to the ones identified previously. The top three challenges – time, technology, and project scope – remain the same.

By far the largest challenge for TLLP teacher leaders relates to time, as reported in 64% of the projects in the sample. TLLP leaders commented on realizing how time-consuming the project management was, how much time collaborating efforts took, and how long it took for TLLP team members to learn something new or to establish trusting relationships. But the time spent on learning new things, building trust, and collaborating was considered well worth the effort as it developed the base for future work and success:

*I learned the importance of building trust amongst teachers. It took time for us to build a collaborative community, but the time was well spent as we continue to dialogue regularly.*

*We also learned about the value of sharing our learning. Sharing is not in addition to the work - it is the work.*

Another challenge related to time was balancing classroom work and project work; many teachers were concerned about being away from their classrooms and students for an extended period of time.

Staying focused and organized, setting manageable goals, looking for ways to be more efficient, and being persistent and flexible were some of the strategies that were used to manage challenges related to time. In one project, dealing with technological and financial issues, an extension was requested and

granted which allowed the project team to achieve their goals fully. More positively, 36% of projects did not report any time-related challenges. In fact, many TLLP project leaders appreciated the extra time that TLLP provided them with to focus on the area of their interest, to collaborate with other teachers, and to learn and try something new:

*Taking part in a TLLP project is a huge amount of work, added to a schedule that is already very full. It is however, an amazing and rewarding opportunity and we are all very grateful to have had the resources and support to pursue learning in depth about something that is of particular interest to us.*

Table 19: Sample Projects: Challenges (Rank Order)

Challenges	Projects	
	#	%
Time	28	64%
Technology	21	48%
Project scope	15	34%
Communication	13	30%
Funding	11	25%
Project management	11	25%
Resources	10	23%
Sharing challenges*	9	20%
Logistics*	8	18%
Relationships	4	9%

\* Themes added by the research team derived from the qualitative data in the Reports.

As the number of TLLP technology-related projects has grown recently, so has the number of technology-related challenges, which was the second most cited challenge in the sample of the Final Reports (48%). In a number of projects, TLLP participants reported having to deal with the board's restriction around technology purchase and use which resulted in delayed acquisition of technology or limited use of it. In these cases, project leaders usually engaged in negotiations with the IT department and the board to find a solution. In one case, the board changed its technology-related policies and vision as a result of these negotiations. In other cases, access to technology for everyone involved in the project was an issue. Being flexible and creative in the use of available resources were strategies used to deal with such issues.

The scope of the project appeared to cause difficulties in a third of the projects; the project's scope turned out to be either too ambitious for the given time and/or budget frame, or too small for an unanticipated increasing level of interest. Usually the project scope difficulties were solved by adjusting the scope. While in some cases the project leaders decided to “go smaller and deeper” with their learning and/or sharing, in other cases the focus for learning and implementation was changed, and in yet other cases, the increased interest was met with changes in the sharing methods.

Communication and relationship issues were less common, but still present in several projects. In one project, for example, large geographical distances between the team members presented a communication challenge. The solution was found in online communication and sharing space:

*Managing a large project, with a large number of people, across a large geographical area can present communication and management issues. I learned that a communication tool such as the NING or a common sharing space should be promoted and used more effectively.*

Establishing open lines of communication and building trusting relationships were considered to be important for success of another project:

*We believe that open communication and building relationships are keys to success. Respecting and building upon the knowledge and skills within the group helped us build stronger relationships and network within the group, as well as outside of the group to achieve our goals and set new goals for learning.*

Lack of funding and resources appeared to be an issue in a quarter of the projects in the sample. Requesting assistance, negotiating, and being flexible and creative with already existing resources were the main strategies used to deal with these issues.

Managing a project, team, and budget appeared to be a problem in several projects as well.

Sharing learning among other people presented its own challenges. Some project leaders commented on having to deal with teachers with a more “set mindset” who were not interested in learning something new and resistant to change:

*Knowledge sharing is rewarding, yet challenging and intimidating. Some practices that may work well in our team because we fostered a strong community may not be possible with other schools. It is not always easy to share*

*amongst colleagues because some people are more closed off to new ideas and it takes a while to convince them of the value of the process.*

Logistical issues, such as finding a common meeting space and time, were reported in several projects as well. Some other identified challenges were changes in the core composition of the project team, and labour unrest which precluded TLLP participants in Cohort 8 from carrying out some of the project activities.

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 and/or 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.

To sum up, even though TLLP participants faced challenges during the course of their projects, they managed to find ways to deal with most of them. These challenges can also be considered new learning and leadership development experiences for TLLP participants. One project leader considered dealing with challenges an important learning opportunity:

*Our main learning came through the challenges we experienced, specifically, that we cannot control everything especially when have to work with other departments within our school board. Being flexible, innovative, and able to solve problems/challenges quickly and efficiently has allowed us to be viewed as "pioneers" of change within our school board, as well as, with our special education colleagues.*

We conclude that the training and continued support in the above mentioned areas of challenges are crucial to the success of TLLP projects.

#### 2.1.2.5 TLLP Project Sustainability: Sample Projects from Cohorts 7 – 8

It is hoped that the learning and sharing during the course of the TLLP project will continue beyond the TLLP project's specific funding period. To learn about TLLP participants' plans on sustaining the projects' learning and practices, starting with Cohort 5, the Final Report form includes a section on ongoing elements of the project.

Our analysis of 44 Final Reports revealed that those expectations and hopes for sustained learning and sharing were not ungrounded (see Table 20). All of the projects in the sample planned to continue learning, working, and/or sharing in the area of their project.

Table 20: Sample Projects: Project Sustainability (Rank Order)

Project Sustainability	Projects	
	#	%
Continuing innovation implementation	38	86%
Continuing learning in the area	24	55%
Continuing collaboration/networking	21	48%
Expanding the area of innovation implementation	13	30%
Open to sharing	13	30%
Applying/considering another TLLP/PKE	11	25%
Responding to interest from others	8	18%
Forthcoming conference presentations	5	11%
Forthcoming Publications	5	11%

Many project leaders intended to continue learning, developing, and implementing in the area of interest alone and/or with others. In 86% of the projects, innovations and learnings developed during the course of the project would continue to be incorporated into project participants' daily practices. In 55% of the projects, project leaders planned to continue learning about their TLLP area of interest and/or continue developing strategies and resources for personal use and for sharing in person and online. Leaders of almost half of the projects in the sample stated they were going to continue collaborating/networking with their colleagues and other experts in the area around the issue/innovation involved in their TLLP.

Many project leaders intended to continue sharing their learning and practices with others. For example, TLLP teacher leaders of 13 (of 44) projects were going to take their innovative practices to a new setting (another school or board) or a new level (rolling out the innovation within the entire school, family of schools, or even board). Others planned to share by providing support to interested schools and teachers, present at board, provincial, and international conferences, and publish in professional journals. Leaders of about 30% did not have specific sharing plans but said that they were open for sharing their learning and/or were seeking sharing opportunities. Supporting TLLP teachers to consider ways to develop a future knowledge mobilization plan is an area worth further development.

Leaders of a quarter of the projects also mentioned having already applied and considered applying in the future for another TLLP grant to continue learning in the area or for a PKE grant to be able to share their learning even further. However, both OTF and the Ministry have indicated concerns about the same teacher applying multiple times to lead a TLLP, contrasted with enabling new teachers have an opportunity to lead and engage in the TLLP.

### 2.1.3 Conclusions from Analysis of TLLP Applications and Final Reports

Our analysis of the data on approved projects and Final Reports for Cohorts 7 and 8 (and its comparison to the Cohorts 1-6 data) result in some interesting conclusions. The emerging trends observed in the recent Cohorts are the following:

**Collaboration** – With the increase in the number of the approved team projects (vs. single-person projects) and greater availability and use of technology for collaborating and sharing, collaboration has become even more prominent in TLLP projects. TLLP members used various methods of collaborating to learn, lead, and share. They discussed and shared their practices with other TLLP project members and with their colleagues across schools, boards, the province or even internationally. They built partnerships with community organizations and engaged professionals, experts, and parents in their journey. Even though they stumbled across some reluctance and resistance on their way, they managed to find a way to deal with those challenges. We recommend continuing to provide training and support in the area of team building, conflict resolution, and creation and use of sharing opportunities.

**Leadership** – The addition of a new section on teacher leadership in the Final Report form allowed TLLP project leaders to reflect on their leadership experiences and growth throughout the course of the project; it also allowed the TLLP provincial partners as well as the research team gain a better insight into the impact of the program on participants as leaders. We are pleased to report that the TLLP's influence on teacher leadership is substantial and positive. We recommend continuing to provide teacher leadership training and support.

**Technology** – Increase in the interest and use of technology among TLLP members reflects the broader expansion of technology in education and society. The number of projects focusing on technology has increased, as has the number of challenges associated with technology. Furthermore, the uses of technology for communicating, collaborating, networking, and sharing purposes have grown further compared with previous TLLP cohorts. With the help of technology, sharing opportunities are unlimited, but their effects are harder to measure. It would be wise to educate TLLP participants about various online sharing opportunities and basic web analytics tools/measures.



**Research** – A research orientation was evident in many project activities. TLLP participants tried to improve their practice by engaging in research and/or reviewing practices proven to be effective. They developed and applied an array of research tools to measure their own, their students', and other teachers' learning. However, a lot of projects relied on informal measures to monitor learning and progress. We recommend emphasizing the importance of proper measures and continue offering training and support to help teachers develop appropriate research and data approaches to measuring the impact of their TLLP projects.

**Voice and Choice** – One of the key characteristics of the TLLP (and the one that makes the program so unique and successful) is allowing for teachers' voice and choice in their professional learning. It has been becoming more evident that, in their learning, leading, teaching, and sharing, TLLP participants provide other adults and students with more voice and choice as well. Just like TLLP trusts the project leaders with their leading their learning, TLLP participants trust their team members, those they train and share with, and their students with taking charge of their learning as well.

**Reporting** – The new changes to the Final Report form affected the nature of the information reported. Most of the sections in the report now allow for both quantitative and qualitative types of data. While the multiple-choice questions allow the respondents to reflect on each and all of the answer choices, the open-ended portion allows information not listed in the options to be added and for respondents to elaborate on their answers and provide examples. The key here, we believe, is to create a *comprehensive* list of possible *clearly defined* response options and to include the "Other" option as well as to provide space for comments. The response options for professional learning activities and methods of sharing could be improved.

## **2.2 Mini Surveys: Analysis of May 2014 & February 2016 Surveys**

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The purpose of the mini surveys is to monitor changes in TLLP leaders' confidence levels in learning, leadership and practices over the course of the TLLP project year. TLLP project leaders rate their confidence level in the same five areas before their project starts and at the end of their TLLP project implementation. The following survey items were a part of evaluation forms for May 2014 TLLP training session and February 2016 sharing summit.

Please rate your current level of confidence in the following areas:

	No confidence				Moderate confidence				Complete confidence		
Implementing practices from your TLLP project	0-10%	11-20%	21-30%	31-40%	41-50%	51-60%	61-70%	71-80%	81-90%	91-100%	N/A
Sharing knowledge and practices with others	0-10%	11-20%	21-30%	31-40%	41-50%	51-60%	61-70%	71-80%	81-90%	91-100%	N/A
Leading professional learning	0-10%	11-20%	21-30%	31-40%	41-50%	51-60%	61-70%	71-80%	81-90%	91-100%	N/A
Leading your TLLP team	0-10%	11-20%	21-30%	31-40%	41-50%	51-60%	61-70%	71-80%	81-90%	91-100%	N/A
Managing your TLLP project	0-10%	11-20%	21-30%	31-40%	41-50%	51-60%	61-70%	71-80%	81-90%	91-100%	N/A
Being a teacher leader	0-10%	11-20%	21-30%	31-40%	41-50%	51-60%	61-70%	71-80%	81-90%	91-100%	N/A

If you have comments or examples to add about the above example, please provide them below:

The survey responses from the initial training session in May 2014 established a 'baseline' and the survey responses from the sharing summit in February 2016 determined the changes. The total numbers of responses were 194 and 119 accordingly. To investigate the differences in TLLP participants' levels of confidence in leadership before and after their engagement in a TLLP project, the following calculations were made:

1. **Descriptive statistics** – we calculated means and standard deviations for pre- and post- survey groups;
2. **T-tests** – we computed Student's t-test statistic for all the cases where the homogeneity of variance assumption was not violated and the Welch correction of Student's t-test statistic where it was.
3. **Effect sizes** – we computed a *d* statistic and followed Cohen's (1988) recommendation regarding its interpretation (0.2 is considered a 'small' effect, 0.5 a 'medium' effect, and 0.8 a 'large' effect) and considered an effect size of 0.2 through 3.7 'small', 3.8 through 6.7 'medium', and 6.8 and higher 'large'.

The results of the above mentioned calculations are reported in the Table 21 below.

**Table 21: TLLP Teacher Leaders Reported Level of Confidence Pre- and Post-TLLP Project**

Leadership Area	Before		After		Difference in Means	Effect Size
	M	SD	M	SD		
Implementing practices	78.7%	12.7	87.4%	10.9	8.7*	0.74
Sharing practices	79.0%	12	86.6%	11	7.6*	0.66
Managing TLLP project	79.4%	12.4	84.6%	12.8	5.2*	0.41
Leading professional learning	77.6%	12.9	82.6%	11.8	5.0*	0.40
Being a teacher leader	80.5%	12.1	85.4%	13.2	4.9*	0.39
Leading TLLP team	79.9%	12.9	84.0%	12.8	4.1*	0.32

\* Statistically significant difference,  $p < 0.05$ .

The mini-survey pilot reported in our 2013-14 research report (Campbell et al., 2014) showed some positive change in TLLP participants' confidence in all leadership areas, but the change in confidence levels was small (differences in means ranged from 1.3% to 3.6%). Since October 2013 and April 2014 (the times when the pilot pre-/post-surveys were administered) did not represent the true beginning and ending points of the TLLP journey, we expected that the results of the mini surveys for Cohort 2014-2015 administered during the training session in May 2014 and the sharing session in February 2016 (which we believe are the true beginning and end points) would provide more accurate and encouraging results. We were right, the data analyzed in the reports shows greater change.

In general, positive changes or growth were observed in all areas, even though educators already felt rather confident about all of the areas of leadership at the beginning of their TLLP journey. The largest growth in confidence level happened in the area of Implementing practices from the TLLP project (the only area with a large effect size,  $d=0.74$ ). Positive changes of medium degree were reported in the

areas of sharing knowledge and practices with others, managing a TLLP project, leading professional learning, and being a teacher leader. Small but significant changes were observed in the level of confidence in leading a TLLP team.

About half of the respondents included a comment in their mini survey response. These comments support the statistics presented above. In general, TLLP participants commented on the value of the program, the challenges they faced, and their experiences.

The overwhelming majority of the comments were positive. TLLP participants expressed their appreciation of the program and their gratitude towards TLLP organizers:

*I truly appreciate the level of trust and autonomy that was afforded to myself and my team. Thank you so much for treating and respecting us as the professionals that we are!*

*Quel privilège d'avoir été invitée au PALPE! L'accueil est chaleureux et vous nous encouragez à prendre des risques et croire à la portée de nos idées.*

TLLP participants used such words as “transformation” and “change” to describe their TLLP experiences:

*This was such a career changing experience. One that can easily be sustained and continued.*

Here is an example of the amazing changes that happened in a professional life of one TLLP participant:

*Since the start of our TLLP initiative, my teaching role has changed drastically. I began as the classroom teacher, became a System Connected Technology Teacher, was recruited by FairChance Learning (Microsoft) to deliver Canada Wide PD on pedagogy and tech integration and am now continuing my leadership journey as a Vice Principal of the largest elementary school in [a city]! This process helped give me confidence in my leadership skills! Thank you!! All this in two years! :)*

Another participant commented on his growth as an educator and a leader:

*By being on this team I went from knowing nothing (or very little) about several technologies, to becoming comfortable teaching colleagues how to use them.*

*This project has transformed how I approach my role as an educator and how comfortable I feel as a leader in education (within my sphere).*

Yet another project leader emphasized the impact of the program on others (not just herself):

*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.*

Several comments spoke to TLLP-related challenges and concerns. Most of those comments referred to the board's involvement. There were three types of board-related concerns:

- Lack of the board's support of or awareness about the project:

*I think that boards need to be more informed of the TLLP. They showed little to no interest because it fit into their BIPSA.*

*Training for board employees who deal with TLLP budgets. Perhaps smaller training sessions.*

- Concerns about project selection process:

*Biggest concern is the process of selecting TLLP candidates and projects specifically in a large board.... inviting superintendents, trustees, principals, directors to see various projects.*

- Too much board involvement:

*...my board was much too involved and tried to change and participate too much in our project - they tried to dictate what we should do.*

Participants who were at the beginning of their TLLP journey were concerned with how the project would develop and their ability to lead it:

*Feeling uncertain about where this will take us. Think we need to narrow the focus. Unsure of how it will be received by colleagues.*

*I have never led a project like this before so it will be a bit of a learning experience. Confident in teaching aspects but a little less confident with regards to the ministry requirements of the TLLP.*

*My concern comes from the managing and implementing side of it. Will people buy in? Can I be effective enough to help persuade them?*

But they were also sure that their confidence would grow and they would be supported along the way:

*I believe everything will come together but at this point I am still feeling unsure about beginning this journey... very excited, but a little unsure as to how this will unfold. I am confident that if we have question along the way, we will have the support in place through the speakers we met to help guide us if needed. Thank you!*

The results of the mini-surveys are encouraging and demonstrate TLLP participants' growth as educators and leaders.

## 2.3 Vignettes on Teacher Leadership

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In the 1980's, Matthew Miles (1988) and his team were investigating three different school improvement programs in New York City. All of them had problems, yet all of them had some important positive results. When looking carefully, it was found that each program had teachers who were in leadership positions. When they were interviewed it was difficult to see how they had learned to lead as it was challenging for the teachers to recall the process of their learning, so Miles invented the idea of the vignette where teachers, with prompts, would write about their leadership journey basically describing in narrative fashion how they learned leadership in their professional development programs (Miles, Saxl, Lieberman, 1988). In this way, we learned the "process" of their learning over time and the teachers revealed how, and in what ways, they learned to work with fellow teachers.

So, as part of the research on TLLP, we introduced the idea of getting teachers to write vignettes about how they learned to lead over the time of their 18-month grant. We gathered data from surveys and interviews, but also wanted to get a deeper understanding of the *process* of gaining an understanding and knowledge of how teachers described the learning that accompanied their growing leadership, written by the teachers themselves over time as the project developed. Having success in using vignettes on teacher leaders in the National Writing Project (Lieberman & Friedrich, 2010), we decided to use vignettes with TLLP teachers. We were aware that few, if any, have tried putting teachers in positions where they organize the development of ideas, lead, implement and share their findings with others and get money and support to organize the development of the work. This seemed to us to be a unique opportunity to find out how TLLP provides the opportunities for teachers to learn to lead.

### 2.3.1 What is a Vignette?

We knew that teachers were inveterate story tellers, but wanted to help teachers specifically write about their learning process, particularly as it related to how they learned leadership with their team, their colleagues, and the professional development ideas that became a part of their TLLP project. We decided to ask teachers to volunteer to write about five or more pages about their TLLP project. A vignette is basically a short story or a narrative written with prompts to bind the story. The prompts were:

- *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? About leadership?*

The vignettes ranged from four to 23 pages long. Over three years of our TLLP research, we managed to get a total of 39 teachers to write about their learning and their leadership. The opportunity was clearly there for teachers to learn leadership by doing it, by organizing their colleagues and by learning how to collaborate in order to make good on the promises of their proposal. We figured we needed at least ten vignettes to find any leadership themes that cut across the teacher's writing. As teachers were learning new knowledge about their particular professional development idea, they were also learning how to lead a team. How did they learn to collaborate? What management skills did they develop? What interpersonal/relationship skills did they learn and how did this come about? What did the teachers learn about themselves and their growing responsibilities with their colleagues? How did they learn to share the responsibilities of the work entailed and the leadership necessary to complete their professional development efforts? How did they learn to make use of the expertise in their team or partner?

### 2.3.2 Vignettes on Leadership in the TLLP

All the teachers were teaching and working with their TLLP project as an additional set of activities at the same time:

*I feel that I have gained valuable experience with keeping my colleagues moving forward on a project with time and budgetary restraints, while maintaining strong working relationships based on respect, trust, and acknowledgements of each other's contributions...*

Many struggled with this new opportunity to learn leadership:

*Sometimes it is difficult to make connections without dictating or overstepping from “facilitating” to “directing.” Sometimes it is hard to remember that people need to feel heard. It is hard sometimes to leave people to their own devices or to even know when it is okay to interject with your ideas.*

In all the vignettes, teachers were very articulate about what they were learning and the processes of learning leadership. Their themes were well described. They were: learning to collaborate, building relationships with their colleagues, sharing the leadership with their team, learning to use technology as a teacher and the leadership needed to use it, implementing their professional development project over the 18 months that they had, and in the process going public with their teaching as a model with their colleagues. Needless to say, there were challenges too.

### 2.3.2.1 Learning to Collaborate

All who wrote vignettes wrote about how they worked hard to keep everyone invested in the professional development project. Learning *how* to do this was an important part of their leadership learning. They involved teachers in different ways. Sometimes they shared leadership with others as they nuanced the purposes of the professional development. Sometimes the job was to keep everyone involved, no matter how excited they were about the work and the ideas. And sometimes it was about just figuring out how to connect to the differences that each of the participants held about the project:

*As a team leader, I learned a great deal about leadership and working with other adults. I learned the importance of ensuring that all members felt like valued contributors.*

*Our daily conversations were immediately deep and meaningful, and came from our shared commitment to students*

Many of the teachers had never worked closely with others to actually produce a program of professional learning. They learned quickly how to use other people’s strengths and build ideas together as a group so that people would stay interested and committed for the length of the project and more. People needed to feel trusted and respected for their contributions along the way. This was an entirely new idea for those developing their leadership! They had to negotiate a series of questions that came all at once. It started with, “Whose idea is this anyway?” How can it be shared? What encourages teachers to plan and think together, to try new ideas and often take people out of their comfort zones?



*Some of the greatest teacher and student learning was unexpected. As a direct result of our TLLP learning and collaboration, we pooled our expertise and created a program that combined all of our best learning as teachers.*

*The collaboration that developed within our science department as a result of focusing on a common goal has helped to instill a level of confidence that was not present before this project began.*

*The connection between leadership and community has been a totally surprising aspect and hugely rewarding. Being surrounded by people who are brave and willing to try new things infuses us with greater confidence to move forward.*

### 2.3.2.2 Learning to Build Relationships

Half of the teacher writers wrote about how they learned to let go of the controls (both with their fellow teachers and their students). Some teachers learned to speak in front of a variety of audiences (for the first time) including other school boards, parents and large groups of teachers. Some learned how to use social media to enlarge their networks and share their learning.

Building networks was a new skill for three-fourths of the teachers as they learned to participate in professional dialogue about the students' and teachers' learnings of their project as they invited others to become involved. Facilitating learning of adults was an entirely new skill, which was very different than teaching students.

*As a team leader, I learned a great deal about leadership and working with other adults. I learned the value of collaborative goal-setting and planning and the importance of ensuring that all team members felt like valued contributors.*

*In the area of mentorship, we formed contacts with other teachers interested in using iPads for special needs instruction and shared knowledge gained from the project.*

They also wrote about how they gained confidence as a leader when they were confronted by some organizational problems, for example: how you keep people involved when teachers grow disinterested; how you share leadership; or how you make good use of the expertise many teachers have. Teachers wrote about the struggle to keep the right tone and make it positive, and how to keep people engaged with the group even when things got complicated.

### 2.3.2.3 Sharing the Vision and the Leadership

For some of the teachers, learning leadership was about figuring out how to talk about vision, planning it, and encouraging others to both share the vision and help shape it.

*The team is significant. By enlisting team members who know their input is valued, one creates the great potential for ideas to grow exponentially. This is what happened on our team. A brilliant idea grew brighter and brighter.*

*We developed a shared responsibility. We found that at times one of us would take the lead, and then others who may have essential expertise would assume a leadership role.*

These kinds of comments showed how teachers realized that sharing leadership could be a critical part of their work. It was less important whose idea it was and more important that people felt comfortable offering input, suggestions and ideas that helped not only shape what they were doing, but helped move it along.

### 2.3.2.4 Learning Technology as a Part of Leadership

Learning technology was mentioned by more than a fifth of those who wrote vignettes. Sometimes it was about iPads or Apps they were learning to use, but sometimes it was about just taking a risk using technology instead of a book or paper and learning a new teaching strategy. Often teachers described how they took risks by trying technological tools that were new to them, encouraging students to help in the process, and struggling with what it meant to be a novice (rather than an expert).

*While we initially set out to do text based online discussions to encourage understanding in science, the topics proved to be so popular among the students that we expanded our project to use cross curricular ideas.*

Using technology provided a very important tool for the teachers who wrote vignettes. Sometimes it was to let students lead (especially when the teachers were reluctant to use an App) as the students were unafraid to try new technological tools. This was a big learning for several of the teachers, as they came to realize the immediate involvement of students and their enthusiasm for Apps as a way of not just playing, but learning too. This was a great opportunity for students to lead and learn in a new way. Not only were the teachers going public with their reluctance, but the students were going public with their knowledge and their learning to lead. Eventually both students and teachers were teaching each other the uses and abuses of learning through technology.

### 2.3.2.5 Challenges of TLLP for Teachers

In an interesting way, there were both personal as well as organizational challenges that teachers faced in TLLP. Those teachers who wrote proposals reflected on their own leadership challenges in working with others.

*Leadership requires patience, insight, understanding, endurance and lots of energy!*

*I finally began to realize that I was overly cautious with money.*

*I learned that my communication style is different than most mathematical thinkers. I had to learn to be clear and linear in my planning and communication with the team.*

The organizational challenges were inevitable, but appeared to be yet another important obstacle to overcome. The biggest challenge was time. How could they have the time to initiate, plan, and actually implement the plans and simultaneously balance their workload? How could they gain the commitment of people who were often on the fence between cynicism and moving with the team for the full year? How could they do all this, work on the budget they had written, and keep the dynamics of the team positive and moving forward?

*It is sometimes difficult to make connections without dictating or overstepping from “facilitating” to “directing”.*

*I have experienced how to manage conflict of opinions, budgeting, release time and how to navigate issues within the changing context.*

*I learned that working with your colleagues, your friends, can be challenging to keep the focus. They had great ideas and I thought they would continue to assume those roles, however, I quickly learned that they viewed this as “my project”.*

After each research report was submitted (Campbell, Lieberman & Yashkina, 2013; Campbell et al., 2014; 2015), both the Ministry and OTF made changes from our suggestions, including the need to further support the leadership development of TLLP project leaders. Additional attention has been paid to the kind of leadership skills that are necessary to do the work, and this has helped some of the personal and organizational challenges that early participants may have had. The team dynamics

which were substantial for early TLLP cohorts seemed to lessen as the program continued in the following years and more attention was paid to communication and conflict management.

Over half of the teachers who wrote vignettes reported that even though there were challenges that they faced, many of them solved them as the time went on, and some reflected on the fact that this was part of leadership in such a program. Teachers have learned to share their leadership, build collaboration among their colleagues, celebrate learning together and figure out how to manage the dynamics of their team as they are building new strategies and materials:

*We used technology to share our learning creating a blog highlighting our TLLP journey, our experiences, pitfalls, obstacles and successes. We used Twitter to connect to educators across the board, province and internationally.*

Learning leadership over time turned out to be an important and interesting strategy, and one that yielded many opportunities to learn: *managing conflicts*, *sharing leadership opportunities* and *responsibilities*, *shaping ideas* that were worked on, and *building strategies* for actually implementing the work. At the same time teachers became far more articulate about their growing expertise which included sharing outside their school:

*Leadership is also about social resources like “perceiving emotions and “managing emotions”. It is important to learn how to “feel” out the situation for where the energy is, and learn to “manage” the issue.*

*As facilitator, I saw the success of the project as being an opportunity to push teachers into considering their own expertise. Educators are often quick to identify their deficits.*

### 2.3.3 Conclusions from Vignettes: Providing the Conditions for Learning Leadership

TLLP turns out to be an extraordinary example of giving teachers an opportunity to learn leadership, as they literally organize and work through a project most often with their colleagues. Teachers learned that they need to share their leadership, include others' ideas, try out new ways of thinking about theirs (and their student's) 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.

Leadership is learned by dealing with all the above conditions and helping to develop an “expertise” that is shared with their colleagues. It is not about a “role”, but rather about a set of organizational conditions to be created, managed, and built. Our research demonstrates that these characteristics are learned because there are opportunities to “experience” leadership along the road to developing and implementing a professional development project with both the time and support needed. 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...*

*As teachers we learned that we all have different strengths. When we learn to work together, we can be a tremendous force for change.*

TLLP vignettes have given us evidence that experiencing a chance to create a professional development effort with the teachers in charge of the ideas, management, and implementation with support, teaches them how to learn leadership, facilitate learning in others, and face and strengthen some areas in both personal as well as organizational learning.

## 2.4 Leadership Skills for Classroom Teachers Training and Sharing the Learning Summit

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In this section, we comment on feedback from evaluation forms completed by participants in the 2015 Leadership Skills for Classroom Teachers training and the 2015-16 Sharing the Learning Summit.

### 2.4.1 Leadership Skills for Classroom Teachers

The 2015 Leadership Skills for Classroom Teachers training event was held on May 6-8 for 221 TLLP participants. Consistent with previous years, the evaluation forms indicate a very high satisfaction rating of this event. Overall 96% of respondents reported being very satisfied (61%) or satisfied (35%) with the event. The top ten “most valuable” aspects of the training, as reported by participants, are highlighted in Table 22. The “most valuable” aspects involve a combination of learning from previous experience, collaborating with colleagues and working on the TLLP projects, and the range of training sessions and supports provided. The main areas suggested for future improvement were reliable Wi-Fi (41 respondents), more time to work on TLLP project (37 respondents), and more networking time, either at tables or in theme groups (33 respondents).

Table 22: Top Ten Responses to Question to Identify “The Three Most Valuable Aspects of the Summit”

Most Valuable Aspects of the Summit (Rank Order)	# of Respondents
1. Learning from Experience and assistance from the LFE presenters	81 respondents
2. Networking with colleagues	73 respondents
3. Time to work on project	71 respondents
4. Project Management session	40 respondents
4. Budget carousel	40 respondents
6. Carousels in general	37 respondents
7. Preparing for Your Final Report	33 respondents
8. Training session in general	23 respondents
9. Importance of sharing	12 respondents
10. Theme groups and seating at tables	11 respondents

## 2.4.2 Sharing the Learning Summit

In previous years, the Sharing the Learning Summit has been held in the Fall term (November) following completion of a TLLP project the previous school year. However, in 2015-016, the timing of the Sharing the Learning Summit was delayed due to a combination of the impact of labour negotiations, work to rule action, and the Ministry suspending a “pause” on activities requiring teachers (and other educators) to attend provincial meetings or events. The Summit was held on February 18-19, 2016. The delay in timing of the Summit does not appear to have affected the engagement and satisfaction levels reported. In fact, participants in the 2015-16 Summit reported the highest ever proportion of respondents to the evaluation forms being “highly satisfied” (82% of respondents in 2015-16 compared to 74% in 2014 and 73% in 2013). Overall, 98% of respondents reported being “highly satisfied” or “satisfied” with the Summit. No respondent reported being “not satisfied”. These are excellent results and clearly indicate the high quality of the Summit and the positive experiences of participants involved.

In total, there were 228 TLLP participants from 111 projects and 47 guests and speakers in attendance at the Summit. Two notable improvements were made in the 2015-16 Summit. First, the Summit was held on weekdays (Thursday and Friday) rather than over a weekend. This appears to have been well-received. Second, additional time (10 minutes more) was added to the Marketplace sessions where TLLP participants can display, visit, and discuss their TLLP projects. As in previous years, participants would like even more time dedicated to the Marketplace and it is clear that the opportunity for TLLP teachers to share with and among each other is the most valued aspect of the Summit. Indeed, as indicated in Table 23, five of the top six “most valuable aspects of the Summit” reported by participants related to sharing among TLLP participants and their projects. The majority of TLLP participants (N=75) reported “casually” visiting 20 or more TLLP projects during the Marketplace; while “in-depth” visits to 1-5 projects was reported by 80 participants, with a further 67 participants reporting “in-depth” visits to 6-10 projects, and 22 participants reporting “in-depth” visits to 11 or more projects. It is clear that the combination of engaging with other TLLP projects and participants, plus keynote speakers and access to Ministry and OTF colleagues and information is a powerful experience to continue TLLP participants learning and also to celebrate and value their TLLP project’s accomplishments.

Table 23: Top Ten Responses to Question to Identify “The Three Most Valuable Aspects of the Summit”

Most Valuable Aspects of the Summit (Rank Order)	# of Respondents
1. Networking/connections with colleagues from across the province	128 respondents
2. The Marketplace sessions and their timing/organization	67 respondents
3. Presenting/Sharing our project and getting feedback	45 respondents
4. Dynamic, inspirational keynote speakers	46 respondents
5. Learning from others about their TLLP projects	41 respondents
6. New ideas/resources for our school/classroom from others' projects	31 respondents
7. Feeling motivated, inspired	28 respondents
8. Reaching Forward session/next steps ideas	25 respondents
9. Joanne Myers	21 respondents
10. Learning About PKE	15 respondents

In response to questions about areas for improvement, the majority of respondents appear to have indicated support for continuing with the existing format and content of the Summit. However, as in previous years, the OTF and Ministry are encouraged to consider areas where several participants have made suggestions. Notably, from 228 TLLP participants, there were only three areas where ten or more participants made the same suggestion for improvement: more time for marketplace visits (28 respondents); want to invite more members of our (TLLP) team (19 respondents); and invite Board representatives/principals so they are aware of the significance (11 respondents).

### 2.4.3 Conclusions

The participant feedback from both the Leadership Skills for Classroom Teachers and for the Sharing the Learning Summit remains overwhelmingly positive with extremely high satisfaction ratings. Participants welcome the opportunity to learn from other TLLP colleagues, to collaborate and work on their projects, and to receive support and input from Ministry, OTF and speakers. The 2015-16 events took account of previous feedback, including changes to the program and content. There are not major areas suggested for improvement based on the 2015-16. However, as outlined above, there are some practical (such as Wi-Fi - 33) suggestions as well as a continued desire for more time for more sharing with more participants. This is a positive sign of the commitment to knowledge exchange and sharing which is central to the goals of TLLP. There are no major issues for consideration indicated in the feedback; indeed, the majority of TLLP participants are highly satisfied and encourage the Ministry and OTF to continue with these events in a similar format and content.

## 2.5 NING Analysis

A further aspect of supporting TLLP teacher leaders to engage in knowledge exchange is the *Mentoring Moments* NING. In this section, we provide analyses of NING online activity during May 2015 to May 2016.

### 2.5.1 Overview of Mentoring Moments online activity in 2015-2016

Overall, Google Analytics data for the *Mentoring Moments* NING demonstrate that November and December 2015 had the highest number of visits and visitors (see Table 24). This finding is congruent with results from 2014-15 analyses where peaks in online activity coincide with the timing of the *TLLP Sharing and Learning Summit* in November (Campbell et al., 2015) and the *TLLP Training Session* in May where the *Mentoring Moments* NING are highlighted. Similarly, the NING experienced the lowest amounts of activity during the summer months. Mid-year data for the site (December to February) showed some growth in comparison to data from the previous year. Figure 1 presents a monthly overview of the number of site visits for both 2014-15 and 2015-16 for comparison; while there were monthly variations, overall there was general consistency in activity during 2014-15 and 2015-16.

Table 24: Mentoring Moments NING Activity by Month in 2015-16.

Month	Visits	Unique Visitors	Page Views	Pages/Visit	Average Visit Duration
May 2016	1565	1227	3764	2.41	2 min 3 sec
April 2016	1745	1350	4071	2.33	2 min 6 sec
March 2016	1863	1405	4964	2.66	2 min 50 sec
February 2016	1962	1540	4449	2.27	2 min 5 sec
January 2016	3028	2275	6429	2.12	2 min 23 sec
December 2015	3464	2554	8497	2.45	2 min 55 sec
November 2015	4359	3321	9816	2.25	2 min 38 sec
October 2015	3143	2422	7378	2.35	2 min 43 sec
September 2015	2689	2040	6439	2.39	2 min 59 sec
August 2015	1291	875	4917	3.81	4 min 55 sec
July 2015	1396	954	5604	4.01	4 min 14 sec
June 2015	2193	1369	7001	3.19	3 min 55 sec
May 2015	2335	1636	8756	3.75	4 min 7 sec



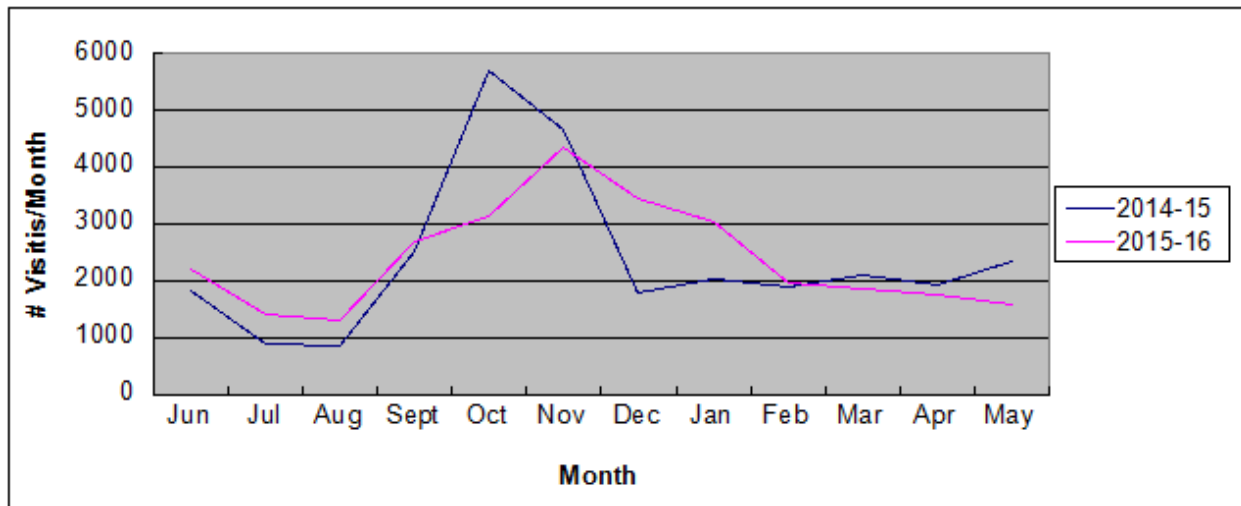


Figure 1: Comparison of monthly *Mentoring Moments* NING data for 2014-15 and 2015-16.

Although overall activity has remained relatively consistent between the past two represented years, the data also shows that there were some areas of decline this year (as evidenced in Table 25). *Mentoring Moments* experienced minimal changes in traffic volume, an increase in the number of unique visitors to the site, and a decline in the number of page views per month, page views per visit, and time spent visiting the site. Figure 2 illustrates the consistent growth in number of unique site visitors this past year and this is a sign of increased awareness of the site and of TLLP/PKE. Figure 3 provides a monthly visualization of the number of pages viewed per month, showing a decline in this area. As will be discussed later, in 2015-16 the introduction of *TeachOntario* as another online platform for TLLP teachers to share their learning and engage in knowledge exchange may have affected the volume of activity on the *Mentoring Moments* NING.

Table 25: Comparison of Descriptive Data for Mentoring Moments in 2013-14 and 2014-15.

NING Data Type	Average	Median	Minimum	Maximum	Interquartile range
<i>Monthly Visits</i>					
2014-15	2412	1948	843	5702	1798-2825
2015-16	2392	2078	1291	4359	1655-3086
<i>Unique Visitors</i>					
2014-15	1716	1419	544	4488	1133-1839
2015-16	1767	1540	875	3321	1286-2346
<i>Page Views/Month</i>					
2014-15	8249	7078	2771	18 475	5976-10 433
2015-16	6314	6429	3764	9816	4683- 7938
<i>Page Views/Visit</i>					
2014-15	3.62	3.32	2.43	6.31	2.97-4.23
2015 - 16	2.77	2.40	2.12	4.01	2.27-3.19
<i>Length of Visit (minutes/seconds)</i>					
2014-15	3m 43s	3m 29s	2m 23s	6m 16s	2m 35s – 4m 25s
2015-16	3m 04s	2m 50s	2m 03 sec	4m 55s	2m 15s - 4m 01s

\*Note. Because of the wide range in activity on a month-to-month basis, this table includes the median and interquartile range to give a better sense of online activity overall given that the average number of visits is more positively skewed by the high volume of visits in October and November.

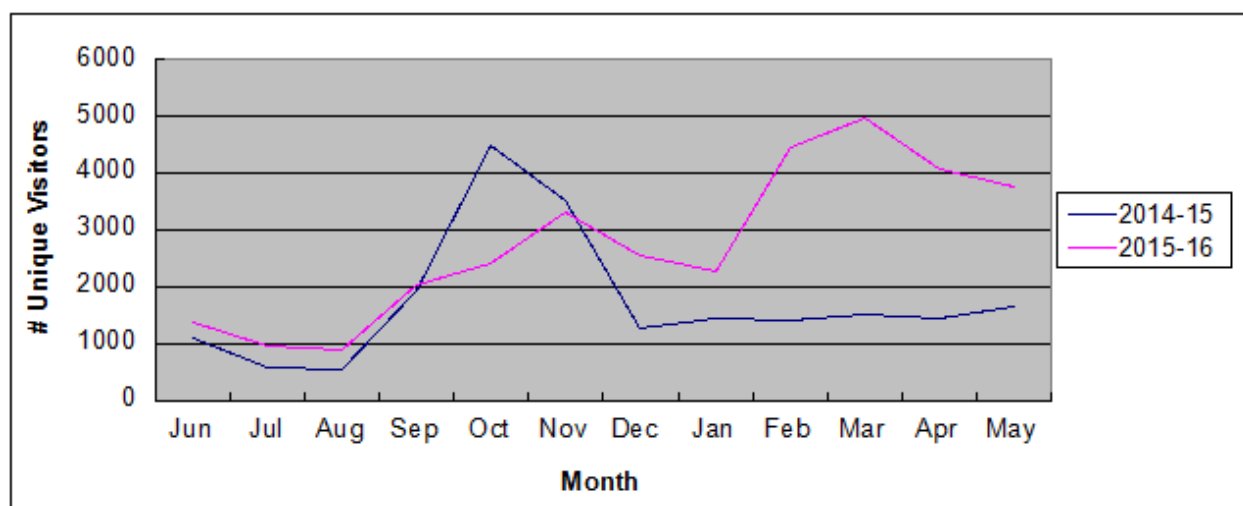


Figure 2: Comparison of unique site visitors per month in 2014-15 and 2015-16.

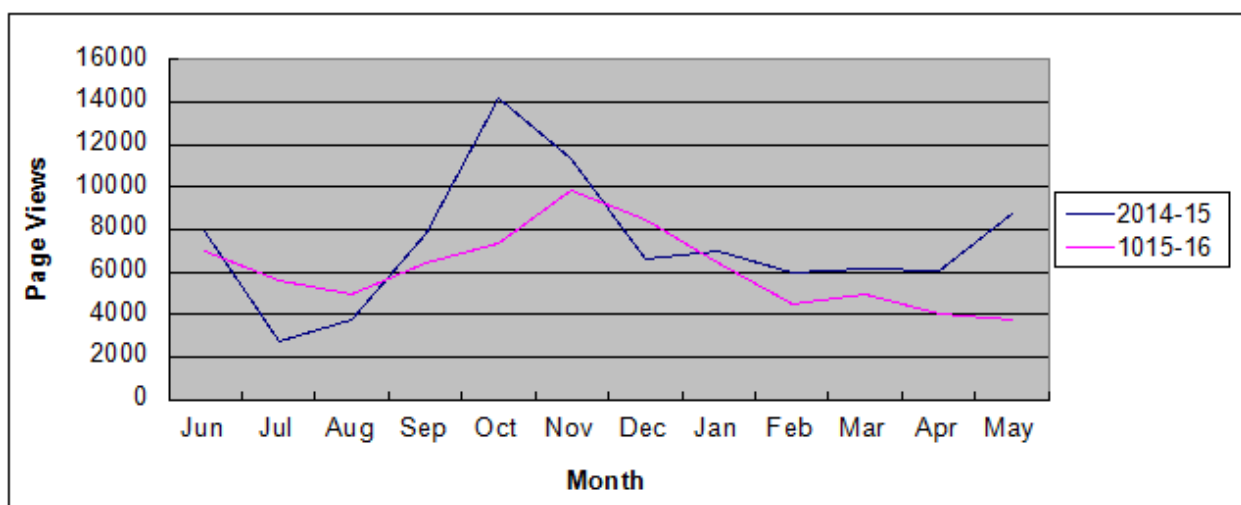


Figure 3: Comparison of monthly page views in 2014-15 and 2015-16.

## 2.5.2 Sharing TLLP learning online

TLLP members have the opportunity to engage with colleagues through interest groups, discussion forums, and blog posts. At the end of this reporting period, the *Mentoring Moments* NING had 1,362 members, a 32% increase compared to the previous year. The NING also maintains a running Twitter feed where all tagged posts – #TLLP15 and #TLLP2015 – are showcased, further demonstrating a rise in the public profile of TLLP on popular social media. The following paragraphs describe activity within the TLLP groups, discussion forums, and blogs. Figure 4 provides an overview of monthly page views for different sections of the NING: main page; TLLP groups; and discussion forums.

### 2.5.2.1 TLLP Groups

As of June 2016, there were 110 individual groups operating through *Mentoring Moments*, representing a nearly 21% increase in the number of individual groups in the previous year (91 groups were reported in 2014-15). The TLLP group webpages were visited a total of 2,041 times in 2015-16, down from 3,759 times in 2014-15, with an average of 170 visits per month and ranging from 90 views in August 2015 to 319 views in Dec 2015. These groups represented many different interests, for example: using technology in the classroom, literacy, numeracy, inquiry-based learning, and understanding adolescent psychology. The largest TLLP group in terms of membership in 2015-16 was the general TLLP/PALPE group with 262 members, followed by iPads in the Classroom (85 members) and inquiry-based teaching and learning (69 members). However, the vast majority of the TLLP groups have fewer than ten members, with many groups having less than five members. Thus, although there are more than one hundred groups represented on the NING, the number of members and levels of activity are quite variable.

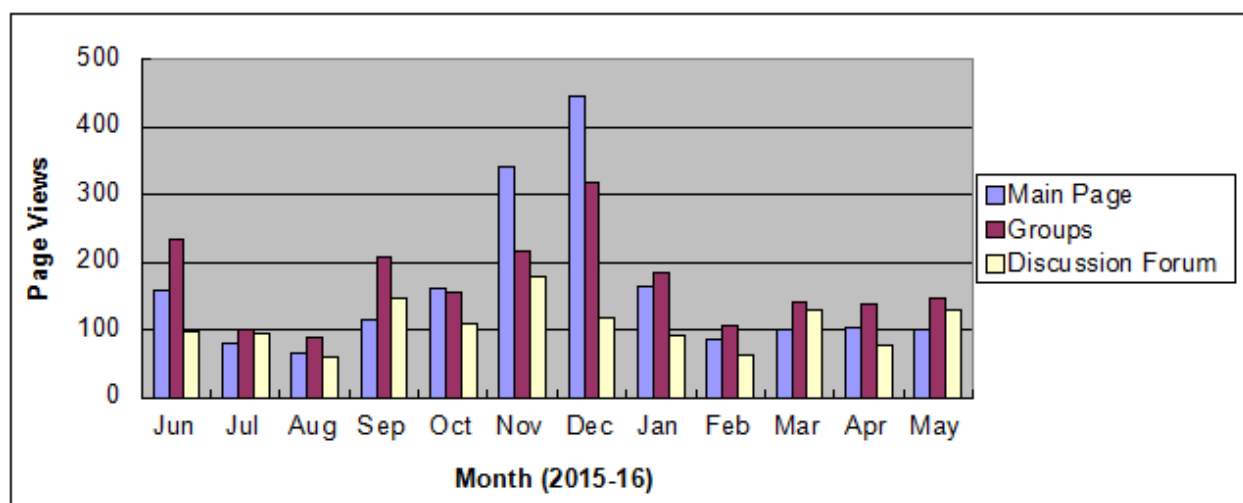


Figure 4: Comparison of page views for the 2015-16 reporting period.

Across the three areas of focus (NTIP, TLLP, and ALP/TPA), there were a total of 11 separate discussion threads initiated in the 2015-16 reporting period, a significant decline from 81 discussion threads initiated in 2014-15. It should be noted that in 2014-15, there was a notable shift to having many online discussions within the individually-created groups. The further decrease in initiated threads during this reporting year was likely due to a further increase in activity within the individual groups. Discussion forum webpages received a total of 1,294 views this year with an average of 108 page views per month as compared to last year's total of 2,875 with an average of 261 page views per month. As in the case with group pages, the decline in activity on the discussion forum is likely due to the increase in activity within external blogs and webpages hosted by the individual groups.

### 2.5.2.2. Blog posts

The number of blog posts also decreased from 278 in 2014-15 to a total of 93 for 2015-16. The blog post webpages received an average of 86 page views per month, down from 217 per month in 2014-15. The patterns of behaviour on the blog posts were similar to that of the discussion forums in that posts were largely made by individual educators in an effort to document their TLLP journey, but the posts generated less interaction with colleagues. Furthermore, although the pages may have been read, for the most part they did not appear to stimulate critical online dialogue about TLLP learning and experiences as very few of the blog posts received any comments.

### 2.5.3 Conclusions from analysis of Mentoring Moments NING data

The *Mentoring Moments* NING continues to be a source for TLLP teacher leaders to engage online. In 2015-16, there were increases in number of users to the site. However, the number of page views per visit, page views per month, and the length of time spent on the site during each visit decreased in

2015-16. TLLP groups continue to play a significant role in the sharing of TLLP learning as the number of groups increased by 32% in comparison to the previous year. That said, group membership and levels of activity varied greatly across the site. There has been a steady decline since the last reporting year in discussion forum and blog post activity. It appears as though many groups are using external sites for collaboration and knowledge sharing. Overall, there continues to be use and activity of the NING by TLLP teacher leaders. However, as will be discussed further, the development of *TeachOntario* plus TLLP teacher leaders creating or participating in other online forums may have affected the levels of activity on the NING. It is worth considering in the longer term what the specific and unique role of the NING will be for the TLLP; it could continue provide a dedicated space for TLLP-specific sharing of artifacts and resources.

## 2.6 PKE Projects Analysis

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To further knowledge exchange, former TLLP projects can apply to become a Provincial Knowledge Exchange (PKE) with funding provided to the school district to support the wider sharing of TLLP professional learning and practices across schools and with other districts, including release time for teacher leaders to provide professional learning and to engage in learning activities. In proposals for PKE funding, and in final reports from successful PKE projects, applicants are asked: How do you outline the key learning goals of your PKE proposal? How do they align with the goals for your school and/or board? Describe the professional learning plan for your PKE proposal? Please include timelines and specific learning designs; and how will you share the learning by making project artifacts available to all school boards and the Ministry (e.g., online examples of student work, teacher reflections in a blog etc.). Successful applicants are also asked to report on how the TLLP/PKE has impacted teaching practice and student learning.

This report presents analysis of PKE projects using the following three data sources:

1. Proposal Summaries for PKE projects (2012-2016) provided by the Ministry of Education\*
2. Final Reports for PKE projects (2012-2015) provided by the Ministry of Education\*
3. Sharing Logs/Info submitted by PKE project leaders

\* Unlike the data on TLLP projects, the information/documentation on PKE projects is incomplete and in some places inconsistent, which make analysis challenging and results less accurate.

### 2.6.1 Analysis of Approved PKE Projects (2012-2016)

Forty projects have been approved and completed or are under way: 4 projects in 2012-2013, 11 projects in 2013-2014, 18 projects in 2014-2015, and 7 projects in 2015-2016. Of these 40 projects, 28 projects are unique while 7 projects have been continued for 2-3 years. Various boards and types of boards are involved in the project: 22 projects are from English Catholic boards, 12 projects are from English Public boards, and 4 projects are from French Catholic boards. The overall proposed budget for these projects is over 1 million dollars. The individual PKE project budgets range widely from \$5,500 to \$60,000; the average PKE project budget is just under \$30,000. The projects focus on a variety of topics, including: literacy, mathematics, media literacy, 21<sup>st</sup> Century skills, science, mental health, social skills, integration of technology, play-based learning, inquiry-based learning, and assessment strategies.

### 2.6.2 Analysis of PKE-Related Sharing and its Impact for Selected PKE Projects (2012-2015)

All PKE project leaders were requested to submit information about PKE-related sharing activities: audience for sharing, level of sharing, method of sharing, and impact of sharing. A suggested template of a log of sharing activities was provided by the research team to project leaders. Both an official research participation letter and suggested log template were translated to French and sent to projects representing French boards.

We received information on sharing activities from 12 projects. We analyzed this information along with the sharing-related information available in Final Reports for these projects. The PKE Final Report form has two fields on sharing activities: a) plans for sharing, and b) impact of the project. Both fields are open-ended and the responses ranged from a few words to several paragraphs. We were able to locate Final Reports for 9 projects only.

#### 2.6.2.1 Sample Description

The 12 projects that contributed to this research provide a sample that includes various cohorts, board types, panel levels, project budget sizes, and themes.

**Cohort:** Two projects were from 2012-2013, six projects were from 2013-2014, and four projects were from 2014-2015.

**Board type:** Half of the projects were located in Catholic public boards, the other half were in public boards. No French language board projects submitted their information.

*Panel level:* Projects focusing on an elementary panel, a secondary panel, a cross-panel, and a link with post-secondary education were included in the sample.

*Budget size:* The project budget ranged widely from \$5,500 to \$60,000. The average project budget was about \$25,000.

*Themes:* The most common topics were New Pedagogies and Learning Skills (e.g. inquiry-based learning, 21<sup>st</sup> Century skills), Math Literacy, and PLC/Community of Practice. The other themes included use of Technology, Literacy, Media Literacy, Student Wellbeing, and Student Transition.

### 2.6.2.2 Results

In this section, we present the results of the PKE sample analysis for project goals, level of sharing, audience for sharing, methods of sharing, and impact of sharing.

#### *PKE Project Goals*

The primary goal of all PKE projects is to share their learning and practices from past TLLP experiences. The projects intended to utilize various methods of sharing to reach multiple audiences, for example presenting at conferences, building professional learning communities, and/or developing and distributing resources. The primary intended level/audience for sharing varied from project to project: from educators in one particular school, to teachers in a particular division/panel in a family of schools or a school board, to educators in other boards and beyond.

#### *Level of Sharing*

The most common level of sharing was within boards, ranging from all interested schools, a family of schools, all schools in a panel, or all schools in the board. Within school sharing was less common (unlike in TLLP projects). It was possibly still happening but was probably an extension of the collaboration/practices developed during TLLP rather than a focus of a PKE project, and that is why it was not being reported in the sharing logs. Three projects also reached out to other boards to share their learning/practices through presentations, sharing of resources, and/or workshops. Sharing with TLLP/PKE community was specifically mentioned in five projects (through Mentoring Moments NING, TeachOntario, or TLLP events). Nine out of 12 projects shared with the larger educational community as well; mostly through presentations at provincial and Canada-wide conferences, use of social media, and making ideas and resources available online for anyone to access.

Table 26: Level of Sharing in Selected PKE Projects

Level of Sharing	#
	12
School	4
Board	11
Other Boards	3
TLLP/PKE Community	5
Larger Educational Community	9

### *Audience for Sharing*

The primary target audience of sharing for all the PKE projects was teachers. School administrators and Board administrators and staff were also PKE project participants in the majority of the projects. In fewer projects, ideas and practices were shared with parents, students, college administrators and faculty, the Ministry and OTF representatives, and the community.

The size of audience varied from project to project and from one sharing opportunity to another. In general, projects were able to share with dozens and in one case even hundreds (about 200) of educators through more personal and direct means (e.g. workshops, classroom visits, PLCs, mentoring) and many more in less direct ways (conferences, mass emails, online presence, distribution of material, through School and Board administrators).

### *Methods of Sharing*

To share their ideas, learning, and practices, PKE project leaders used a variety of methods depending on the purpose and targeted audience. Table 27 lists the methods of sharing that were mentioned most often in the PKE sharing logs and/or Final Reports.

The main priority was projects that worked on spreading their learning and practices among their division, school(s) and board. The most common method of sharing was a workshop; these were used by 11 out of 12 projects. While most projects focused on organizing one to three workshops for educators within a school or a board during the course of the year, one project (with the biggest budget and number of participants) was able to hold over 10 workshops for staff in several schools.



During workshops, generally the facilitators presented their ideas, discussed their learning and implementation process (both successes and challenges), demonstrated their innovations, and suggested available resources. Participants were supported to try out those innovations and ideas, to consider their application in their own settings, and to co-develop and share developed materials. The project leaders reported positive reaction to all their workshops. For even deeper learning and more intense development, collaborative inquiry and learning were used as a method of sharing. In at least 8 projects, such forms of collaboration as professional learning communities, communities of practice, study groups and planning committees were formed to analyze an issue/idea at hand, reflect on current practices, brainstorm solutions, develop new strategies and resources, and/or plan together. The collaborations were developed at various levels: within and across divisions, within and across schools, within and across panels, and with partners from other organizations (e.g. colleges) and boards. One-on-one relationships, such as mentoring, were also developed in at least 3 projects for training and learning purposes. Classroom visits, meetings in person, and email communication were used to maintain these relationships.

Going wider with their sharing was either a primary or secondary goal for the PKE projects. To share learning from the project within or outside their board, project leaders held presentations to school and board administrators hoping that they would distribute the information further. One project log mentioned the use of group and mass emails to inform all teachers in the board about the project and available resources. Even wider audiences of educators were reached via sharing through provincial and Canadian conferences, publications in professional periodicals, social media (Twitter, Facebook, Pinterest, YouTube), blogging and project websites, as well as online sharing platforms such as NING, TeachOntario, and Google Applications For Education (GAPE). To communicate project learnings with their local communities and parents, projects used school and board newsletters, local media (newspaper, radio, TV), and a community event.

Table 27: Methods of Sharing in Selected PKE Projects

Method of Sharing	#
Workshop/Training	11
Collaborative learning	8
Conference	8
Social media	6
Project website	5
Blogging	5
Online platform	5
Mentoring	3

### Content of Sharing

The projects leaders shared not only what they learned but how they learned it as well. They shared their stories to add authenticity and credibility to their message:

*Each one got to tell their story. Their journey this year and their next steps in an authentic way that was well received by their audience. How validating was that. And it was not like there were no concerns or questions. Each presenter told stories of ruin as well as success so that the discussions afterward were authentic – a back and forth questioning of self and other with the intent of improving practice!*

They demonstrated the 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, eBook, instructional videos, suggested resources) available in print or online. In one project, an iTunes U course for teachers has been developed. The project leaders hope that, "This will be an international platform for all teachers interested in effective remediation models with supporting data and research-based instructional practices."

### *Project Impact*

The impact of PKE projects on teachers, students, schools, boards, and the larger educational community is overwhelmingly positive. According to the logs and Final Reports, the project sharing activities resulted in more knowledgeable, skillful, motivated and confident educators. After participating in workshops or collaborative inquiry, many teachers felt inspired to try new strategies and tools in their classrooms and, in some cases, acquired “a rejuvenated and joyful approach to teaching and learning.” Eight projects reported changes in teaching practices as a result of participation in their PKE projects. In these projects, teachers had a chance to try new strategies or use new tools/resources in their classrooms and report back on successes and struggles. The changes in teaching translated into changes in student experiences: improved self-awareness and control, increased motivation and engagement, improved attitude, increased enrollment, improved sense of belonging and community, increase in student voice and choice, improved learning skills (collaboration, communication, sharing, problem-solving), and better relationship with teachers.

Even though specifically mentioned in only a few cases (but may apply more widely), project leaders were also impacted by the PKE projects as educators and leaders. For example, one project leader talked about the twofold nature of the impact of their professional development sessions:

*The impact of all of the ... sessions run by the PKE team members was twofold: for the teachers they had an opportunity to have a concentrated day of release time to focus on learning about technology ... and considering how to apply it to their subject area, grade levels and courses. For the PKE team it was an opportunity to develop their leadership, facilitation and presentation skills, with the opportunity to design, organize, and deliver the session. These sessions were most rewarding to ourselves and meaningful to our colleagues. The feedback was incredibly positive.*

Improved collaboration and professional relationships between colleagues were also observed in the majority of the projects. These collaborations also resulted or have a potential to result in more consistent practices and approaches across the school, board, panels, and educational sectors.

### *Future Plans/Sustainability*

In general, the PKE project leaders plan to continue: developing the program, strategies, resources, and/or connections; implementing the strategies/tools/practices in their schools and boards, and increasing the extent of implementation to other interested schools and boards by informing and/or training more educators; and sharing ideas and resources further (through presentations, social media, publications, blogs, project websites, participating in another PKE and the NORCAN project).

### 2.6.3 Conclusions and Suggestions

The analysis of the available PKE data showed that PKE projects are capable of providing meaningful learning and professional development to educators across schools and boards and inspiring many more educators with their proven-to-work ideas and accessible ready-to-use materials. Using the words of PKE project leaders, teachers who were lucky to be a part of PKE sharing, consider it “the best PD they ever received!” and students of those teachers “are happy and can't wait to start the day.”

We suggest continuing to provide PKE grants to eligible projects. We also recommend improving the program management by developing a better system for tracking and storing of PKE Final Reports and other documentation. In addition, making changes to the Final Report form by requesting information on the nature and spread of PKE-related sharing activities that actually happened (not just planned ones) is recommended, along with requesting more details on the impact of the project on project leaders/facilitators, educators, students, schools/board, and future plans.

## 2.7 PKE Case Studies

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In addition to analyses of PKE logs and documentation, we are conducting in-depth case studies of PKE projects to examine their approaches to professional learning, leadership and knowledge exchange, the impact of those approaches, and potential for sharing and sustainability of improvements in knowledge and practices. In 2015-16, we began a third PKE case study focused on Ultimate Potential (UP) Mathematics; a summary overview of this PKE is provided below. In addition, we completed two previous PKE case studies, reported in full below.

### 2.7.1 Ultimate Potential Mathematics: Durham Catholic District School Board

Leanne Oliver and Kevin Hoadley began their TLLP project with an aim to improve poor student outcomes in the Grade 9 Applied Stream Mathematics program at Oshawa's Monsignor Pereyma Catholic Secondary School in Durham Catholic District School Board. Funding for their first TLLP project enabled the teachers and their TLLP team to focus on acquiring and analyzing empirical data to determine how their students were learning and where specific numeracy gaps existed. Through an iterative process of assessing and tailoring varied best-practices, inquiry-based learning models, and technology-supported techniques to fit the documented needs of their students, they were able to create a highly successful mathematics program that resulted in highly substantial improvements in attitudes towards mathematics and on EQAO provincial assessment scores at Pereyma. Before their U.P. Math program was implemented in 2010, only 17 percent of the school's students were meeting

provincial standard in Grade 9 Applied Mathematics compared to 71 percent meeting level 3 or 4 standards following program implementation. These significant improvements in achievement results have generated attention from students, teachers, and educational leaders.

The team at Pereyma, supported by funding for their PKE project, have been focusing attention towards sharing their learning in a variety of ways. According to the TLLP/PKE project leader, Leanne Oliver, the U.P. Math program initially evolved out of team-teaching and other collaborative efforts, so it was a natural segue for the team to continue the collaborative sharing outside of the school following its proven success. The financial resources, including release time, and professional mentorship provided by the TLLP were integral in enabling the team to foster capacity building professional development based on their unique community needs. Once the team began to find success, they de-privatized their classrooms and shared their best practices with the school-at-large. They began school-wide and then cross-board professional learning through collaboratively examining data to identify needs and seek out solutions. Leanne Oliver credits the success of the sharing to the cycle of learning, experimentation, and innovation that TLLP and PKE allowed for as it provided safety and comfort through feedback, collaborative planning, and advocating for change through a solid, unified teacher voice.

Educational leaders across Durham Catholic School Board will be implementing the U.P. Mathematics across schools in the 2016/2017 academic year. PKE team members have been in contact with other boards in regards to potential implementation as well. The team has also been working with Apple to create a U.P. Math iTunes U course and their school has been named an Apple incubator school; a label that comes with access to an international professional development community and technological resources for the entire school. Furthermore, TeachOntario Talks has helped to share their success story through publicly accessible blogs and discussion threads.

On top of creating sustainable partnerships and being invited to share at international educational conferences, the TLLP and PKE experience has also encouraged many of the teachers involved to take on informal leadership roles themselves. The growth mindset has become contagious for many teachers at Pereyma as they have felt the professional imperative and satisfaction that goes along with teacher-lead professional development and collaboration. As Leanne Oliver put it:

*I think it's the mindset that was really pivotal for most of the teachers involved in TLLP and PKE, that growth mindset and the idea of being lifelong learners. I think that is the biggest value that comes professionally from people, and I think it's really contagious.*

We will continue to research the U.P. Mathematics PKE case study in 2016-17.

## 2.7.2 Balanced Math PKE: Simcoe County District School Board

This case study explores the Balanced Math (BM) program PKE which originated in Fieldcrest Elementary School (E.S.) in Simcoe County District School Board (SCDSB). The case study draws on integrated observations of two professional learning sessions, one held at a SCDSB centre and one at Fieldcrest E.S., and includes classroom observations. Interviews were conducted with teachers (5 participants), a principal, Superintendent, and the PKE team (3 participants). A review of program documentation and resources was also conducted.

### 2.7.2.1 Context

The BM program began as part of a TLLP project at Fieldcrest E.S., located in the municipality of Bradford Ontario, in the SCDSB. Situated in south-central Ontario, the SCDSB is a mix of urban and rural schools within a geographic span of 4,800 kilometers. The SCDSB is comprised of 85 elementary schools, 17 secondary schools, 7 learning centers, over 6,000 employees, and approximately 50,000 students (SCDSB, 2014, para 1).

As a Grade 6 teacher at Fieldcrest Elementary School (E.S.) in 2012, Kristen Muscat-Fennell led the TLLP and then the PKE projects. Kristen's passion for math encouraged her to bring the BM program to her classroom and the school. She traces this interest back to 2005 when Lee Sparling's teaching methods ignited her interest in BM. At the time, Lee, a SCDSB teacher, had recently created and published a resource called Balanced Math. Kristen had great success with her students in the primary grades during 2006 and 2009 and wanted to share this with others. The BM program eventually grew from a smaller TLLP project to a PKE involving eight schools in the SCDSB. By the 2013 school year, there were a total of 15 elementary and secondary school teachers participating in the BM program. Schools and teachers were selected based on their willingness and "readiness" to participate as agreed upon by administrators at the school and district levels.

In 2013, Kristen led the PKE team with support from her colleagues Darryl Bax, a Special Education Resource Teacher (SERT) and Stephanie Skelton, a grade 8 teacher at Fieldcrest E.S. Each team member brought complementary skills to the program such as technology, pedagogy, leadership, and project management. In addition to operating as a cohesive team, the project team cited receiving strong support from current and past school principals as well as a Superintendent of Education, Anita Simpson.

A pivotal moment in the BM program's implementation occurred after Kristen's presentation at the 2013-14 TLLP Sharing the Learning Summit when the SCDSB noted the successes and wanted to support

the BM program implementation in more schools board-wide. As Superintendent Anita Simpson recalled:

*We were seeing some really great uptake and positive feedback and really engaged teachers and students, so we decided as a senior team we were going to involve some of our schools that were leading in the area of mathematics because the whole three-part math lesson is the foundational piece of math learning...*

As part of their interest in supporting the BM approach to mathematics, the school district committed to building capacity in schools. Superintendent Simpson explained that they were intentional about selecting schools in the 2013-14 school year, at which point 45 teachers were involved, with a total of 15 schools, including a couple of secondary schools. Upon applying for the PKE the subsequent year, the BM program's focus grew two-fold: (1) incorporating teacher mentorship, and; (2) including kindergarten to grade one. Superintendent Simpson attributed the program's success in implementation to its gradual phasing in:

*And so it continued every year, a nice gradual evolution. So we were achieving spread, slow but sure. Nothing radical from year to year, but an intentional pathway that really built capacity over time.*

As of the 2014-2015 school year, 18 schools participated in the BM Mentor PKE and 16 schools participated in the BM kindergarten to grade one PKE.

Notwithstanding the program's success, there were a range of social and political challenges encountered during its implementation. Firstly, a school's readiness to participate in BM could be a challenge. As a way to mitigate this challenge, the PKE team supported the schools in need by co-facilitating lessons with the staff. Secondly, in some schools a lack of resources posed challenges, which the PKE team supported by sharing resources and ordering extra resources as needed. As part of the resourcing challenge, technological problems arose at times with the iPads. The PKE project team accessed supports such as Apple Care in order to fix technological issues.

### 2.7.2.2 Program Description

BM provides opportunities for modeled, guided, shared, and independent math experiences in an engaging, interactive learning community. The use of the 3-part lesson, including open questions and parallel tasks are essential practices within the SCDSB, and often represent approximately 60-70 minutes of mathematics instruction. Those classrooms using the BM program as a further consolidation and

practice strategy often do so in an additional 20-30 minutes per day. In some classrooms, typically Intermediate, BM happens once per week during a 100-min. instructional block.

One example:

1) Whole group instruction (60-70 min.)

- New concepts taught in a 3-part lesson (using open questions & parallel tasks)
- Consolidation task assigned and/or completed

2) BM rotation (20-30 min.)

- Students are directed to their next BM rotation and proceed independently

3) Optional follow-up work time (15-20 min.)

- Students begin work independently on lesson consolidation task if not completed during 3-part lesson

Based on a five- or six-day rotation, students are placed into groups of four to six. Each day, groups typically participate in one of the following BM activities:

- Guided Math/Problem Solving
- Shared Problem Solving
- Independent Problem Solving
- Math Journal
- Math Games
- Math Facts
- "Share the Wealth" – Whole group consolidation

Teachers have the option of incorporating BM rotations in their weekly lesson plans. These rotations include the components of the differentiated instructional program.

The key learning goals of this PKE include growth in student achievement in mathematics through additional opportunities for consolidation of learning with a balanced focus on procedural fluency and problem-solving, learning through the mathematical processes, and digitally-supported differentiated instruction and assessment from Kindergarten to Grade 9. The SCDSB's Learning Plan includes essential practices which focus on: reaching every student through differentiated instruction and assessment; the



use of technology to enable and enhance student learning; teaching through the mathematical processes; and the use of triangulated assessment for, as, and of learning.

### 2.7.2.3 Sharing the Learning

We examine the BM PKE's approaches to professional learning, teacher leadership, and knowledge exchange.

In the 2012-13 school year, the BM PKE team shared their model with SCDSB teachers through a three-part series (2.5 days) of professional development that aligned the project's goals with district and school improvement plan priorities. The first professional development session introduced teachers, coaches and administrators to the PKE project and learning goals that could culminate into a plan for implementation. The second professional development session included opportunities for sharing successes and challenges, a demonstration and moderation of student work, and a collaboration on additional strategies. The final professional development session involved a culmination of the program including moderation of student work, a survey to measure the program's success, and plans for further sharing. As part of the final session, each teacher was asked to bring a sample lesson plan for the collective BM resource binder. During the sessions, the teacher participants were also encouraged to create the materials that they would be using to facilitate these workshops with their staff.

The sessions were based on the premise that teacher learning occurs through collaboration. Building on the model initiated by the PKE team in 2013, similar sessions were held in the 2014-15 school year. Each session builds in time for the exchange of ideas and the co-planning of lessons. The project team values these opportunities, as they believe that teachers often lack opportunities to discuss ideas with their colleagues amidst their daily routines. Teachers act as leaders, facilitators and resources for sharing the knowledge with other staff at their school.

The most evident examples of teacher leadership emerged within the project team, particularly the PKE project lead. Since the implementation of the BM program at Fieldcrest E.S., Kristen was seconded to the central board office as a kindergarten to grade eight Math Facilitator/Instructional Resource Teacher. However, Fieldcrest E.S. continued to act as 'home base' for professional development workshops, including demonstration classrooms. The demonstration classrooms served as examples where teachers shared their learning with other teachers, showing BM lessons in action. In 2015, Kristen was appointed vice-principal at Ernest Cumberland Elementary School. During this time, she continued her involvement in BM. In 2015, the Canadian Education Association (CEA) acknowledged Fieldcrest E.S. for the school's BM program with an Honorable Mention for the Ken Spencer Award for Innovation in Teaching and Learning.

Although the leadership development was obvious within the core PKE team, a model for “distributive leadership” was a central principle guiding the BM program. The PKE leader explained the team’s vision for growing teacher leadership beyond the core team:

*So what we realized is for this to continue to grow and for each of us to grow in some of our own ways and step back from Balanced Math, we need to build more system leaders. We had 18 schools involved in that last year. What happened is the mentors were selected because they were teachers that had already been part of the learning with us through Balanced Math, and they had shown a real keen interest, had some success in their class, and were quite excited about the framework.*

As the BM program expanded, the project team assumed a multi-tiered approach to distributed leadership through mentor programs. The project team’s approach to distributive leadership resulted in several professional learning opportunities. While the two-day BM sessions were a part of this approach, the project team also conducted training and facilitation to foster leadership skills in teacher mentors. Teachers developed training modules that could be used district-wide. Superintendent Simpson described the project team’s approach to developing mentorship beyond their own school by going to other schools “depending on who volunteered across the board.” She also noted that, “The element of choice is a key guiding principle in all professional learning plans.”

Knowledge exchange was evident for teachers within their own schools, nearby schools, and their own school district. In most instances, other teachers were the audience for knowledge sharing activities. The core PKE team explained that they shared their TLLP-related learning or practice predominantly across nearby schools or families of schools and within their own school district. Beyond the school district, the PKE team shared their work during presentations at conferences such as the Ontario Association for Mathematics Education (OAME) and Connect, a national conference for learning and technology.

The primary knowledge exchange method occurred through the district’s BM professional development workshops and sessions for teachers from the 18 participating schools. The PKE team led facilitation training for mentors and designed sessions where mentors collaborated to create a BM digital tool kit to use and share with colleagues back in their home schools. The use of Apps, including Google Apps for Education (Google Classroom, Forms, Sheets, Docs) was embedded in these training and planning sessions.

The PKE team used a variety of approaches to encourage teacher mentors to share their learning during Professional Activity days in their school or ‘Lunch and Learns.’ Digital platforms were used to

share the learning. Other means of sharing were occurring through broader networks such as TeachOntario. Superintendent Simpson explained the use of technology was an essential part of engaging teachers across the district: "Leveraging the technology to build community and create community was something else that we really focused on."

Additionally, the project team shared their learning using online methods such as a Wikispace which was used originally during the TLLP and then Google Drive throughout the PKE to highlight a variety of instructional strategies and resources linked to the school district's instructional practices. The team observed that they had much success with their TLLP Wikispace, which was being accessed by approximately 100 teachers and administrators province-wide at the time of the case study research. Since the creation of the Google folders and the team's presentations at the 2015 Connect and OAME conferences, many more teachers both district- and province-wide have been able to access the BM resources. These resources include videos, sample rotations, learning goals and success criteria, assessment ideas, tip sheets and student work. Furthermore, resources have been curated on Pinterest and shared under the BM heading. Teachers are now encouraged to share their learning by sharing rotations and resources which will be uploaded into the Google Drive folders.

The materials and resources created and shared by the PKE team, teacher mentors and other SCDSB educators are available at the links below:

#### Websites:

- TLLP/PKE Balanced Mathematics Program Page BM Resources  
<http://bit.ly/balancedmath>  
<http://tllpbalancedmath.wikispaces.com/>  
<http://www.pinterest.com/prd2bcdn77/balanced-math-resources/>

#### Videos:

- Introduction to Balanced Math <http://bit.ly/BalancedMath>
- Math Games and Math Facts <http://bit.ly/BalancedMathGamesFactsvideo>
- Independent Problem Solving <http://bit.ly/BalancedMathIndependentPSvideo>
- Shared Problem Solving <http://bit.ly/BalancedMathSharedPSvideo>
- Guided Math <http://bit.ly/BalancedMathGuidedvideo>
- Math Journal <http://bit.ly/BalancedMathJournalvideo>

#### Text:

- Lee Sparling's Balanced Math <http://www.teacheasy.net/c378000396p17673259.2.html>

The PKE team encouraged teachers and teacher mentors to use a Balanced Math hashtag on Twitter, #balancedmath, to further share learning and resources. The PKE project leader described the use of Twitter as a tool for increasing engagement and building capacity across the school district:

*We were using Storify to capture and share student and teacher learning stories. If you go back to that hashtag, we had Kindergarten to Grade 8 classroom teachers and kids tweeting out what they were doing for Balanced Math. Our goal was to, again, not only build capacity within our Board, but also to share that out beyond our Board...to share our learning and to get ideas from others.*

The PKE team saw Twitter as a means of supplementing the other approaches being used to facilitate the use of BM across the school district.

The PKE team also engaged students in kindergarten to grade one classes in the use of Twitter and other technological approaches to support knowledge sharing among the students. Using a program called *Easy Blogger Junior*; teachers gave students an open journal question to record responses either by video, or in written form. In some cases, students would audio record their description of solving the math problem. In other cases, students wrote blogs in their math journals describing their thinking about particular math problems. The PKE project leader believed that through these programs, students were able to “make their math thinking visible.”

#### 2.7.2.4 Impact and Outcomes

The PKE project team reported on classroom impacts based on observational data. These included 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. A school principal described the impact of BM on the students, drawing a connection between student abilities and their perceptions about learning math:

*The impact in terms of Balanced Math on the kids has been huge. They have developed a sense of confidence in their ability in numeracy, which is huge. They've developed an enthusiasm to do Balanced Math...I mean you hear kids asking whether they are going to have Balanced Math in that day and get to do the activities on that particular day, the activities and the centers. And obviously numeracy is a focus in the province right now and to have kids that motivated to do math is always a good thing. I personally believe there is a little bit of a correlation between a student's belief in their ability to do something and their*

*actual performance of that. So having them believe that they can do well in math is translating into their achievement scores.*

As evidenced by the principal's perspective on the impacts of BM, the program's impact moves beyond what was necessarily measurable in terms of test scores. Overall, teachers reported high levels of student engagement in math learning with BM activities.

Interviewees also reported high levels of engagement in schools participating in the BM program. The principal of Fieldcrest E.S., David Brownlee, commented on the culture in the school during BM's initial implementation:

*Kids are engaged. Teachers are engaged. When there's an engaged staff, there's a momentum in the school - not only for BM but everywhere else. It's a lot more enjoyable to come into work when there's motivated staff.*

Superintendent Simpson echoed similar sentiments about the impact of BM on student learning, engagement, and achievement:

*It's fun, and that's what I hear from kids over and over again, 'This is so fun, I love math.' They don't even want to go outside when it's a nutrition break. They want to keep playing. They're just happy and that's just a joy to see when you are visiting classrooms and you're seeing kids engaged in math and having fun. And we know from the EQAO (Ontario provincial student achievement tests), and report card data from the participating schools... that there seems to be an improvement in student achievement when the strategy is implemented, as well. So they are not only enjoying math, but they are actually learning it more effectively.*

Several teachers expressed similar views about the BM PKE benefiting student interest and engagement.

Since 2013, the PKE project team has used the results of various data sources, including surveys, provincial and local student achievement results, and evaluation forms and feedback from teachers participating in the BM professional development activities to learn about impacts and inform next steps. The project leader cited successes such as the widespread use of practical resources, including "Bump it Up" boards as a strategy for encouraging students to move up a level as part of the four provincial assessment stages (i.e. levels 1-4). Furthermore, the project team pointed to the three-part lesson as being essential to teaching practice where BM supplements and supports consolidation of the

existing math program. Many teacher interviewees expressed feeling more comfortable with their three-part lessons because of the BM professional development and supports. The PKE project leader believed that the impact lies in seeing evidence that the BM program is strengthening existing teaching practice and student learning outcomes.

Furthermore, interviewees expounded on the program's ability to build teacher capacity through the gradual release of responsibility and an increased sense of ownership over classroom resources and practice. Teacher participants called BM PD sessions "practical." Teachers pointed to the immediate applicability and usefulness of resources provided. These resources include a binder with rubrics and Blackline Masters (reproducible handouts), links to Apps, Pinterest and the Wikispace. Superintendent Simpson noted that the professional development offered through the BM PKE was different because it encourages innovation and is teacher-driven, in alignment with SCDSB's intentional focus on innovation. When it comes to understanding teacher collaboration, Superintendent Simpson also reported that they have gathered informal feedback from teachers about their experience with BM and mentorship. She acknowledged that although they have not conducted formal assessments, the informal feedback was useful:

*So, we have not done any attitudinal work around their pre- and post-experience, not formally, but the informal feedback that we have had from teachers is how wonderful it is to be able to work with other teachers, how wonderful to have a mentor, how wonderful to have somebody to connect with, to talk to about my math programming in a very public, open way and I think that's to be celebrated, because too often it's a closed door.*

Mentorship was a key component of teacher collaboration in the math programming. Teachers reported positive feedback about the opportunity to share and learn with a mentor.

The program fills an important need, where math is known to be a priority area for development in the province of Ontario. The majority of teachers identified Guided Math as a means of supporting their students who benefit from small-group, focused instruction. Some teachers have worked with gifted students in the classroom to help with planning math rotations. Participating teachers identified other contributing success factors as the project team's ability to be approachable, accessible and available to support teachers whenever they need it.

Technology continues to play a significant role in the BM program implementation for students, teachers, and schools. However, some teachers reported limitations in the availability of technology resources (e.g. student to iPad ratio). Although technology is often leveraged to support student

achievement, there are many opportunities to facilitate a BM program without technology. The program is flexible based on the needs of the students and resources available. Time was also cited as another challenge faced by many teachers trying to balance their math program with regular instruction.

As a whole, the main impacts and outcomes of BM were evident in reported high levels of student engagement in math, increased student math achievement scores, the development of practical math resources and strategies, and increased teacher collaboration.

Finally, the BM program continues to expand. As of the 2015-2016 school year, the SCDSB has engaged in talks with at least two other school districts interested in using the BM program.

#### 2.7.2.5 Sustainability

Measuring long-term impacts and ensuring program sustainability are key areas that require development. However, to date there have been three primary factors which supported BM's sustainability: Ministry funding, school district support, and teacher leadership.

Firstly, the PKE team acknowledged that the TLLP and PKE funding from the Ministry not only enabled the BM program to exist, but also to span Kindergarten to Grade 9 schools across the district. The wider reach, which also includes some secondary schools, allows for program consistency between different grade levels.

Secondly, the SCDSB has integrated the BM program into the Board Learning Plan. Superintendent Simpson explained:

*We've called it a Board Learning Plan because we are intentional about growing a culture of learning and in that Board Learning Plan, BM is an option for schools to choose, and it's an interactive plan.*

As part of this integration, the district has funded BM as a professional learning opportunity available for teachers to select. The integration of the BM option is one way that the district aims to support program sustainability.

Thirdly, the model of distributive leadership and mentorship are keys to ensuring sustainability. Because leadership development occurred beyond the PKE team, it made it easier to build on the program's strengths, even beyond the inevitable changes in roles and responsibilities amongst staff. In particular,

the emphasis on building teacher mentors encouraged the spread and reach of the program in schools across the district.

While the above factors contribute to sustainability, ongoing support is required in order to ensure the BM program's implementation and consistency of practice across the district.

#### 2.7.2.6 Conclusions from the Case Study

In sum, the BM PKE at the SCDSB provides a model of collaboration, teacher leadership, and mentorship with many key ingredients that can contribute to future success. The use of technology was noted throughout the sharing the learning sessions, ranging from the early use of Wikispaces to growth through Google Apps for Education, iPads, videos and other digital tools. With strong support from district leadership, the BM program has made inroads throughout its schools, becoming supported by the Board Learning Plan. The BM program exemplifies leadership and collaboration at every level: student, teacher, principal, parent, and school board. The flexibility and adaptability of the BM program to meet diverse student needs is a significant contributor to its success. Another key factor is the collaborative nature of the PKE model of learning and sharing.

The SCDSB seeks innovative approaches to leveraging digital technologies to engage students and improve learning. The team continues to integrate new learning and technologies as they become available to support student achievement in mathematics and to integrate the best practices of BM into the play-based classroom.

#### 2.7.3 Through Their Eyes: Documenting Literacy and Learning in Kindergarten: Renfrew County Catholic District School Board

This case study examines the *Through Their Eyes: Documenting Literacy and Learning in Kindergarten* (DLLK) PKE which developed from a TLLP project in St. Francis of Assisi Catholic Elementary school in Renfrew County Catholic District School Board (RCCDSB). Interviews were conducted with the three PKE project leaders, two superintendents whose portfolios included this project, the school principal who originally supported (and continued to support) this initiative from its first year, as well as a group of teachers and early childhood educators who were participating in the program. In addition to the interviews, we attended and observed two full-day workshops that were led by the PKE project team (and included more than fifty educators who were in attendance). We also reviewed relevant TLLP and PKE materials and resources.



### 2.7.3.1 Context

The RCDDSB is located in eastern Ontario, a couple of hours west of the Canada's capital city of Ottawa. RCCDSB is considered a small school district because it serves a student population of about 4,600 children and adolescents who live in mostly rural communities situated across a wide geographical area of 7,851 square kilometers. RCCDSB serves a diverse student population, and this district has a notable proportion of military families within its community. It is not uncommon for many of these households to be temporary single-parent homes as a result of parental deployment (often overseas) as part of their military service — a characteristic that brings with it its own unique challenges. In total, there are 22 schools (19 elementary schools, 2 secondary schools, and one alternative secondary school site), in addition to one young parent support program and three section 23 classroom communities for students with special needs (e.g., mental health, behavioral issues) that extend beyond those that can be addressed in a typical school setting. Full implementation of Ontario's Full Day Kindergarten Program was achieved in the 2014/15 school year during which time there were approximately 350 junior kindergarten students and 386 senior kindergarten students supported by 26 Early Childhood Educators (ECEs) and 35 kindergarten teachers.

### 2.7.3.2 Program Description

The *Through their Eyes: Documenting Literacy and Learning in Kindergarten* (DLLK) PKE project focused on integrating technology into kindergarten classrooms for the purpose of documenting and supporting student learning. It centered on building educators' (i.e., teachers and ECEs) capacity to use digital technologies to create electronic portfolios (ePortfolios) as a means of pedagogical documentation. The goal was to have students use iPads at various times throughout the day to take photos, and make videos and/or audio recordings about activities that they have engaged in as part of their learning centers; these artifacts would then become a part of each student's ePortfolio. Because teachers and students were able to easily share their work with the class in real time using Apple TVs (or other 'smart' TV technologies), these documentations of student learning were shared daily with classmates as prompts to encourage reflection on previous learning and in setting future directions and learning goals. The use of ePortfolios allowed students to: 1) reflect on their own work and learning; 2) take an active role in documenting their success; 3) examine their growth and learning over time; and, 4) make decisions about the future based on evidence and criteria (TeachOntario, 2015).

The original TLLP project that spurred the DLLK PKE was initiated by four teachers at St. Francis of Assisi Catholic Elementary school in response to a problem of practice that they were experiencing; as explained by one of the PKE project leaders:

*So we were trying to make sure that nobody was going to be forgotten in the crazy busy schedule because some days our kids [students], who were 3 to 5*

*years old, had four teachers: music teacher, French teacher, Extended French teacher, and the regular classroom teacher. We were all just trying to stay on the same page. And the technology seemed to be the answer for us.*

The use of technology and creation of ePortfolios provided an effective way to establish and maintain consistent communication in response to these challenges. Using Desire2Learn, an online learning platform available through the Ontario Ministry of Education, these teachers were able to use the images and videos captured daily within their classrooms to create password-protected electronic portfolios for each student, which could be accessed from anywhere in the world where the internet was available. Consequently, this blended learning environment (classroom and online) opened up pathways for parents, educators, and students to engage with each other to support student success.

Based on the success of the original TLLP project, the project team applied for and was awarded a PKE grant to support sharing their learning with many of their Kindergarten colleagues from other schools within RCCDSB. The PKE team involves three of the original TLLP project team leaders – Julia Graydon, Alison Radley-Walters, and Kyle Gleason. The intent was to build capacity to integrate digital technology as pedagogical tools within other kindergarten classrooms for the purpose of documenting student learning. The project coordinators organized four professional development sessions to support their colleagues' learning. Funding for this PKE activity allowed for the teacher leaders to facilitate their colleagues' exploration and learning about pedagogical documentation through full-day, face-to-face professional development workshops that also provided valuable time for networking and collaboration among the 65 RCCDSB faculty and administrators involved in this initiative. In addition, an online repository was created where teachers and ECEs continued to share resources with each other.

### 2.7.3.3 Sharing the Learning

The DLLK project's approach to sharing learning is rooted in the development of networked learning communities. The leadership team ensured that groups of participants from individual schools (e.g., groups of 3–4 teachers and ECEs from one school) were involved in the PKE initiative. The intent was to develop individual, school-level learning communities where the teachers and ECEs could work together and turn to each other for assistance on leveraging digital technologies to support pedagogical documentation practices within their home school contexts. In addition, these school-level groups would come together as one learning community at the PKE workshops that were scheduled throughout the year. As one TLLP/PKE teacher Leader commented:

*...when you are trying to learn this new stuff, if you have someone to do it with or to say, 'Do you remember when so-and-so said...' or 'do you remember how to*

*do this?' It just makes the learning that much more fun and interactive and it gets more exciting when you can share it with somebody who cares.*

The PKE's approach developed the capacity both within and between schools for teachers to support each other in their journey. Teachers reported turning to each other for expertise and advice about how to address issues they may be experiencing before reaching out to school district special assignment teachers (called SPATs). As one teacher explained:

*If we have an issue, we go to the ones we know who have been to these workshops and that are using this first, before going to [the Special Assignment Teachers]. We try to figure out on our own with the knowledge we've been given first, and that's usually been good enough.*

There was a real benefit to developing a community both within schools and also between kindergarten classrooms across schools where teachers and ECEs felt that they could "send an email or pick up the phone" (teacher participant), reflecting the overarching idea that "there [would] always be at least a few people in every school that know how to do this" (teacher leader).

There is a pervasive culture of co-learning within these learning communities. Regardless of position within the wider system (i.e., teacher, ECE, SPAT, school or district administrator), there is a shared ethos that everyone is learning from and with each other within a context where failure is acceptable (and even encouraged) and where people "have the time to practice and play" (TLLP/PKE teacher leader) without fear of judgement. Groups of teachers who are working on addressing their individual problems of practice come together during dedicated PKE time to share their learning with the group and to learn from their colleagues' experiences as well. As one teacher noted, "It was just coming here and sharing and learning from everyone else." An ECE aptly noted that the DLLK PKE project is "really by us, for us." The leadership team emphasized that, although they were there to share their initial learning through their TLLP project, the goal of the PKE was to expand ideas around the importance of collective knowledge sharing, ensuring that everyone in the group understood that their knowledge and experiences were valued and worth sharing with the whole group. One of the teacher leaders expressly noted that the leadership team "...tried to go with a co-learning stance, [saying] 'You guys are all doing wonderful things in your room that we can learn and benefit from.'"

The PKE dedicated sessions provided the space and time necessary for educators to engage with each other and practice what they were doing (or were planning to do) in the classroom with each other. Importantly, it provided a space for community sense making and support in a continuous learning

cycle — critical elements in the success of bringing this initiative to scale across (nearly) all Kindergarten classrooms.

The school district was credited with providing many supports that ensured the success of the DLLK initiative. Initially, “a few system [district] highlights in terms of the work that was happening...spread the word quite a bit” (superintendent), helping to generate interest in the good work that was happening prior to the PKE through the initial TLLP project. The school district was also an important supporter of the PKE project:

*I think our board (school district) has been a huge support. They recognize the value in what we're doing and they recognize the expertise of our educators... There is a solid support system to say, 'What can we do to make TLLP run? To make this PKE run?' (TLLP/PKE teacher leader)*

District-level leadership has also supported the educators' learning by taking a co-learning stance in terms of their role in this process; this was not a top-down model of school program implementation. School district administrators have championed and encouraged the teacher leaders in their quest to develop meaningful professional learning for Kindergarten faculty. They have supported the group's focus on building a depth of knowledge (as opposed to breadth) that responds to the unique learning needs of the various types of schools that exist within the district. They have embraced a step-by-step approach, allowing teachers and ECEs to “take one thing and try one thing... [and] slowly practice and build upon those steps” (teacher). Teachers and ECEs report that they are grateful that they can focus on experimenting with the technology as they shift their perspectives “from using technology in classrooms as game apps and things like that... [to] turning it into using it as a tool for your students to use, to document, for documentation and things” (ECE). Most importantly, they appreciate the freedom to practice and play without fear of evaluation: “There's no checklist at the end; you can do this and you can do that because you're not being reported on” (teacher). The openness of this learning environment appeared to have enabled the participants to engage with the learning much more freely than if there were a formal assessment of their progress at the end of the initiative. The system level support for this type of professional learning was recognized and appreciated by all TLLP/PKE participants.

Despite these supports and structures, the team did experience some challenges in sharing the learning within the DLLK PKE project. Time was identified as a major hurdle to get over in order to develop and organize effective PKE workshops:

*Time...was the big one. We were saying that it would have been extraordinarily challenging for us to have done as good a job or as comprehensive a job as we did if [her teacher leader colleague] didn't have the position that she had.*  
(TLLP/PKE teacher leader).

The fact that one of the original TLLP project teacher leaders had moved on to a Special Assignment Teacher role at the school district office was identified as the primary means of mediating the group's struggles with finding the time to organize events of this magnitude. She was now in a position where she was free from teaching duties and in regular contact with schools around the district, and this flexibility and access helped the team to organize effective PKE sessions that were responsive to the needs identified by participants from around the district.

As is often the case, money also posed a challenge to the work of the group, particularly because so many educators wanted to participate in the program. One superintendent noted that "We had to find other funding when people [faculty] were begging [to participate] ... So I talked to [a superintendent colleague] and we found other sources of money and there were still some [people] we couldn't bring in." Additional funding was required to cover costs associated with supply teacher coverage, travel expenses for faculty members coming from schools in more rural communities, hotel conference facilities to accommodate for the space and technological needs required to host the PKE workshop, and to pay for everyone who was interested in participating (e.g., supply teacher coverage). Despite the funding received for this PKE project, the demand exceeded the available funding; however, the district was able to reallocate some other funds to support the professional learning of most of the educators who expressed interest in this PKE initiative.

There were also come challenges associated with misconceptions about what the DLLK PKE project was really about. Many people, including the media who reported on this project within the local and wider provincial communities, thought that the primary focus of this project was developing twenty-first century learning skills as they relate to students' abilities to use digital technologies. This is not entirely untrue; however, from the perspectives of the PKE project leaders and teachers, the real emphasis was on developing students' capacities to document and understand their own learning processes (foreground) and digital technologies were tools that could be used in these pedagogical documentation processes (background). In addition, some educators who were trying to implement this learning in their own schools were surrounded by skeptical colleagues who viewed this as the current fad or latest trend in education and not as tools that could help them address problems of practice that they were experiencing in their classrooms. An ECE said:

*I think there are two sides. There's one side that says, 'There's just going to be more for us to do' and there's the other side, which I think is all of us, [who are] saying that this is going to make things easier. We just need to keep driving forward and figure it out. There are still lots of stuff to figure out, but we still need to keep going because it's going to make things a little more time efficient for us. It's going to make things easier for us to document student learning.*

Ultimately, teachers and ECEs were able to mitigate these circumstances by showing their colleagues exactly what they were doing (breaking it down into clear steps aligned with classroom pedagogy), bringing their colleagues to related professional development events where possible, and maintaining their own commitment to what this learning will bring to their own professional practice.

Despite these challenges (which ultimately were overcome), the spread of the knowledge expanded outside of the formal boundaries of the PKE. The DLLK project catalyzed a culture of sharing within schools, and many teachers were sharing their learning with colleagues who weren't formally involved in the PKE. One teacher commented:

*Other teachers were so motivated by what they saw and then they wanted to do it on their own... We've helped out so many others who have just had the initial interest, and showed them how to get started and it's really branching out just from word of mouth.*

Another teacher stated, "when you see [what the students] can do as a teacher, it's really hard not to tell people about it." The enthusiasm for sharing was not just bound to other educators. Teachers were equally as excited about being able to share students' learning with their families. As one teacher commented:

*For me, one of the biggest hooks is the sharing piece. What the students can take home and share with their parents, because I always feel that parents are wondering, 'What's my child doing during the day?' As a parent I wonder that, and when they [the children] come home and share those things... [They] can also show me.*

The enthusiasm and excitement about sharing was a centerpiece of this learning, especially with parents.

Overall, teachers spoke passionately about their appreciation for the level of responsiveness to teacher needs in the PKE workshops. They appreciated the time that the PKE leadership team took in soliciting continuous feedback from all members of the learning community (teachers and ECEs) and using that feedback to inform the organization of subsequent PKE workshops. One teacher explained positively:

*Well, they ask that question a lot, 'what would you like to see at the next PKE session? What would you like to learn more about?' They really do look at that [feedback from surveys] and follow up with it.*

Another teacher highlighted her gratitude for the co-learning structure of the PKE sessions where teachers and ECEs were learning from and with each other as opposed to traditional top-down, stand and deliver models of professional development:

*Usually at professional development things, the presenter presents and all the teachers sit together... Most of the time we learn from [quietly] talking to one another about what we're doing in the classroom [on the side], whereas this way here, we're allowed to talk out loud. Yeah, we learn so much from each other and we don't have that much opportunity to do that.*

Participants consistently spoke about the benefits of learning alongside one another:

*And [one of the teacher leaders] has people go up [in front of the group] and talk about what they're doing and how they're doing it. To me, that's the best learning.*

*I like that they're [the leadership team] including people from the room to present to each other.*

There was widespread acknowledgement among the participants that the DLLK PKE workshops were among the best professional development opportunities in which many of these educators had ever participated.

### 2.7.3.4 Impacts and Outcomes

Participation in the DLLK project through the TLLP and PKE has had beneficial impacts on the learning of Kindergarten teachers and ECEs in the school district. According to a Superintendent, initially the teacher leaders:

*...were faced with the reality that, [although they wanted it] to be about professional development and pedagogy...at some point there still needs to be some instruction. And they wanted instruction on the technology.*

The PKE workshops combined learning about leveraging digital technologies for the purpose of pedagogical documentation with direct instruction about how to use the various apps that the educators now had access to in their classrooms. Although the content of the professional learning was important, teachers spoke frequently about how sharing and learning from each other's experiences and expertise encouraged dialogue as well as knowledge sharing and creation: "we can come together and learn from each other" (teacher). This sharing and learning resulted in a de-privatization of practice, opening up new learning spaces that emphasized the human and social capital within and between the schools themselves. The freedom to explore without penalty and the continuous messaging that failure was okay resulted in participants who engaged with the technology on their own terms, seeking out the knowledge and experiences of their colleagues to help them develop their own expertise. This approach to learning made it relevant to everyone and highlighted the 'do-ability' of using digital technology to document student learning with individual classrooms regardless of what stage individuals were at in terms of their own knowledge. The educators recognized that although participation "is voluntary...it's beyond that. It is desired" (teacher).

The intentional inclusion of multiple teachers and ECEs from each school participating in the PKE workshops continued to cultivate the culture of co-learning that existed among and between all members of the group. Throughout the year, they were supporting each other, inside and outside the PKE workshops:

*It's a good model too. To have... [a] team of open classroom teachers to be able to dip in and get some work or ideas and go back out. I think that works too.*

Most importantly, the teachers were beginning to speak about the ways in which the PKE participants were starting to influence the learning of their colleagues within their home schools. One teacher described 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.* The impacts of the PKE project on teachers' and ECEs' professional learning include: a) making public the knowledge and expertise of the individual participants; b) creating learning environments that openly encourage learning from each other rather than the 'expert' at the front of the room (which the teachers identify as ineffective); c) making individual practice more visible among colleagues with invitations for feedback within a culture of trial and error; and, d) 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.

With regards to the knowledge, skills and practices of teachers, the greatest shift as a result of their participation in the DLLK PKE was in teachers' use of digital technologies from a 'delivery system' (e.g., for game apps, projecting materials) to the use of technology as a pedagogical tool that supports student learning. As one teacher elaborated:

*What I liked about the focus of these guys [TLLP/PKE teacher leadership team] when they first started, their TLLP was turning the tide from using technology in classrooms as game Apps and things...turning it into using it as a tool for your students to use, to document, for documentation and things.*

Participants spoke about their old habits of using technology as reinforcements of classroom instruction — that is, using various learning Apps to practice what they were covering in class. However, after their engagement in the DLLK workshops, and in particular, after learning and developing their technology skills within a collaborative learning community, technology is now being used “as a learning tool where the kids are actively engaged in using it to learn” (teacher). Furthermore, they began to speak about identifying and addressing problems of practice that they were encountering in their own daily work. As they became more comfortable with their own knowledge and skills in addition to becoming more aware of to whom they could turn for assistance when needed, teaching teams were more often using technology to address these challenges. Indeed, this was the impetus for the original TLLP project where the teacher leaders “went searching [for] ways to solve our challenges that we were having with the new information we were gathering, and how we were going to share it” (TLLP/PKE teacher leader). Similarly, as the participating teachers and ECEs began developing their own skills and recognizing their own expertise, they also began turning to technology to address their own problems of practice.

Furthermore, the increased recognition both within and outside the school district for their work prompted further learning across the group (extending beyond the PKE workshop participants) as the educators felt an increasing sense of value with the broader community. A school principal describes how the success of one group of teachers encouraged others to embark on similar learning journeys:

*So there was lots of attention being paid to these teachers and ECEs, and the other teachers saw it and they kind of [say], 'hey, if they can do it, we can do this too,' and there's value in that. (School principal).*

Both the original TLLP and the subsequent PKE experiences have had positive effects on both the originating TLLP/PKE teacher leaders and the broader group of participants in the PKE workshops. One PKE teacher leader attributes her participation to leading her to pursue a graduate degree and to take on a position of responsibility (special assignment teacher) at the district level, explaining: "Honestly, without this TLLP, I don't think I would be in the role that I'm in. I think the TLLP led to this position". Others spoke about the TLLP and PKE projects giving them new opportunities to be impactful teacher leaders within their own schools. One of the project's other teacher leaders spoke about how her TLLP involvement impacted her professional practice:

*[It] gave me the opportunity to be a leader without having to change my job... I don't have to seek out an admin role to feel that I'm a leader. For me, that is a really nice feeling or sentiment; that's something that the Ministry and the Board has acknowledged. It doesn't mean that at some point I might not change my mind, but I'm happy to stay in the role that I'm in for a while.*

Other teachers also spoke about similar experiences of feeling like a 'teacher leader' in their own school contexts. An individual who described herself as a "'leave me in my classroom doing my thing'" (teacher) kind of teacher who didn't "want to talk to big groups of people" spoke of the transformational experience that her involvement in the PKE had on developing her own identity as a teacher leader:

*Then this year, because I did a very short ten-minute thing on blended learning here [at a PKE workshop], which I was very, very nervous for...honestly, I'm not a sharer...and so I did that and I ended up... I presented at the EOCCC [Eastern Ontario Catholic Curriculum Corporation] and then another conference in Ottawa, and even just talking here. So definitely I've become a leader from all these things we've come to.*

Overall, participants were reporting that through their experiences with TLLP and PKE, they were coming to “feel very valued as a professional” (TLLP/PKE teacher leader). Through their shared learning with each other, the teachers and ECEs were developing their own knowledge and expertise, which one teacher explained was a key aspect of his view of what being a leader means: “I think being a leader is being confident in your knowledge and knowing what you’re doing” (teacher), which another teacher confirmed as what had been occurring through her experience “over the months” (teacher). As a result of their feelings of empowerment and being valued in a climate of high trust, the teachers were experiencing what a principal described as “a level of professionalism that, generally speaking, we’ve never had before prior to maybe four or five years ago.”

The benefits of the DLLK project were not only experienced by educators. The use of digital technologies in the classroom had positive impacts on student engagement and learning as well. As quickly as the teachers were catching on to using technology as a learning tool within their classrooms, “even the students [were] utilizing the technology in the room to document their own learning, and it’s almost seamless” (superintendent). Teachers, ECEs, and district leadership reported increased student engagement in class with enthusiasm and greater independence. A PKE teacher leader describes her view of student engagement:

*The kids love to share their learning. When they see a picture of themselves on the TV or a picture of something they’ve done, they think that is terrific and they love explaining to the kids...most of the students love explaining why that picture is important or how they’ve made that structure or whatever the picture might be.*

Another teacher situates her learning through recognizing the importance of technology in the lives of today’s students:

*And for me, this is where we’re at with technology, and so I want to know what are the new things that I can be doing with my students in the classroom because their lives are so technology based. They know so much already.*

There was consistent reporting of increased student engagement across all participants. Witnessing student success and engagement increased teacher engagement and excitement as well.

Parents were also frequently identified as beneficiaries of teachers’ use of learning technologies to document student learning. One participating teacher spoke about her experience as a parent of students whose teachers were leveraging digital technology in their classrooms:

*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.*

However, balancing parental expectations with the capacity of the system has been a challenge related to this and other initiatives that see increased use of technology in classrooms. There is not a uniform expectation for teachers to be using learning technologies in these ways across the school district; teachers have the choice to use technological tools as part of their daily practice or not. Consequently, the district has had to deal with the expectations of parents who were expecting to continue to see this level of technology use in the classroom as their children progressed. 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, they reported being able to engage in more detailed communication, which often clarified parents' understanding of what's happening at school: "I find that I even talk to parents more now...once the kids get on the bus, I can sit down and send an actual well thought out note to parents" (teacher). Another teacher elaborated, "That's been a big change [in parent communication]. There might have been a lot more questions before, whereas now they have a lot more knowledge." Another teacher spoke to the ability of parents to reinforce their child's learning at home as a result of this increased knowledge:

*I think it helps the parents reinforce, too, the learning that's going on at school because they watch the same videos that we watched in class. The kids, for some reason, love to show those videos on the online classroom to their parents.*

Technology also helped develop special connections for the military families that make up a significant proportion of the district's community. Many of the students in this school district find themselves with one parent at home whilst the other parent is deployed as part of his or her military service. 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.*

Similarly, another teacher spoke about an email she had recently received:

*I just got an email the other day...a dad who's away right now, just saying 'thanks for sending all these things. When I'm missing my kids, I go back and look at the pictures and they're great.'*

The use of digital learning technologies is creating new spaces for parents to engage in their children's learning, offering new ways for parents to become involved in their children's education. Ultimately, parents "like to have that digital window into their child's daily life... So that's been a real positive benefit" (superintendent).

#### 2.7.3.5 Long-Term Impacts and Sustainability

At the level of teacher leadership, the DLLK project has been a powerful example of the ability of a small group of teachers to initiate positive change across the entire school district. As one of the original TLLP teacher leaders explained:

*It's amazing how that [TLLP] project started with four teachers before we were in the FDK program [Full Day Kindergarten], because it was four of us on our own, and now how it's gone through our school, and now I feel what we see and how it's gone through the Board...it's amazing to see all that.*

The success of this TLLP group has also encouraged their colleagues to apply for (and begin) TLLP projects of their own. The principal of the original TLLP school recognized the value of this work, acknowledging the ripple effects the success of this group has had on other educators in the board:

*...other teachers saw it, and they kind of [said], 'hey, if they can do it, we can do it too'...I like the energy that it is causing and continues to cause around the school.*

Across the teaching population involved in this study (both classroom teachers and ECEs), there has been a growth in understanding of the potential of technology as a pedagogical tool, positively affecting the ways in which they carry out their work. The educators' learning and the concomitant rise in confidence, in some cases, has led to greater decision-making power at the school level, which has continued to fuel teacher motivation and feelings of efficacy. One teacher recounts when her school principal:

*left [a decision about technology in the school] with us for a couple of weeks, and we sat down and talked about it rather than her saying, 'Okay, this is what our school needs' and not knowing that much. So it was really kind of nice that she gave up some of that ownership.*

Instances such as this, enabled teachers to begin shifting their stance in regards to viewing themselves as decision-makers within the school. As the teachers and ECEs began to feel more confident in their work with technology in their classrooms, they also began to view their knowledge and expertise as being valuable within the broader school context and were beginning to take some steps to becoming teacher leaders themselves in their own schools.

The increased positive public profile of the teachers' work both within and outside the board has also had other positive impacts for the schools. Not only are teachers becoming mentors in their home schools for other teachers who are looking to leverage digital technologies as a tool for pedagogical documentation (i.e., those not involved in the TLLP/PKE), but the attention garnered by this work is providing ways for the school to be able to acquire more technology resources to facilitate the spread of these practices school-wide. For example, one teacher describes how her involvement in the PKE has allowed the school to build upon the technological infrastructure that is being built within her school:

*We were worried about [the unequal distribution of technology resources] in our school because, last year with the CODE [Council of Ontario Directors of Education] project, the kindergartens were given all of this technology, and then we found when they [students] moved up to grades 1, 2, or 3, they didn't have a lot. But now with [the TLLP] ... we find that the School Council is on board, the principal's on board, and they have really helped get that for all the other grades too. It really does benefit the whole school.*

Nevertheless, at the school district level, there remains the challenge of ensuring that the focus remains on pedagogy and how technology can be used as a learning tool given the susceptibility of technology to be sought out without necessarily being explicitly linked to pedagogical goals:

*The real power here is the pedagogy behind it, so how do you make sure that next year the people that want in want in...because they in on the pedagogical learning, not just the 'send me the flat screen and four iPads and I'll be set'. (Superintendent).*

The positive experiences of educators within initiatives such as the TLLP and PKE create pressure on school districts to find future funding to ensure the spread and maintenance of the work across the system. In addition to concerns around the funding of these sorts of initiatives, the superintendents also identified the challenge of keeping principals aware and understanding of what is happening through initiatives of this sort:

*[There's the] issue of how to keep our principals abreast of what our teachers are doing with this or any other initiative. It's how to keep them in the loop as well. (Superintendent).*

Thus, funding and knowledge sharing within the administrative structures are challenges that need to be overcome when addressing the sustainability of this work.

The increased enthusiasm and greater involvement of parents in children's learning is an important outcome of the TLLP/PKE. Teachers report much more consistent interaction with parents, which results in families having greater access to and understanding of children's learning in schools:

*It's no longer when it's parent/teacher night... It's regular involvement, and that eliminates the surprise factor when report cards come. I find there are no longer any big surprises because the communication piece is there with these pictures and these little notes. And a picture is worth a thousand words, and then with the little caption, you are really seeing where your child is at. So I find the parent involvement piece is excellent...you're having that instant information.*

In this way, "parents get to see a lot more than they ever have before" (teacher). Parents who are witnessing the benefits of technology as a pedagogical documentation tool are keen to ensure its continuation throughout the school district because "it really is a virtual window into the classroom" (teacher). The result is increased parent participation in the schooling of their own children and within the broader school community, which will hopefully continue to fuel the legacy of the DLLK initiative as it spreads throughout other grade levels within the district.

The *Through their Eyes: Documenting Literacy and Learning in Kindergarten* project provides an exemplary demonstration of the TLLP in action. From the initial project where a small group of teachers in one school developed their own expertise and capacity to use digital technology to address their challenges in documenting their students learning, to the four-part workshop series offered to Kindergarten educators across the nearly the entire school district, the DLLK project clearly exemplifies the goals for the TLLP program for professional learning, teacher leadership and knowledge exchange.

In this project, there is ample evidence of ongoing teachers' professional learning. Many of the teachers and early childhood educators identified their participation as among the most valuable professional learning experiences that they have ever had during their career. They identified being able to share existing knowledge in addition to creating expertise of their own as invaluable aspects of this professional development opportunity. Furthermore, the educators and administrators involved in this work spoke consistently about the value of sharing the exemplary practice of teachers and ECEs within this school district as the source of a newfound energy and enthusiasm not only among school faculty, but also within parent communities, and most importantly among the students themselves. And lastly, the DLLK project has given voice not only to the teacher leaders involved in the design and implementation of this project, but also to those participants who because of their own learning began to take steps towards becoming teacher leaders in their own right.

## 2.8 TeachOntario Case Study

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In 2015-16, we started a new additional research project on a case study TeachOntario, developed by Television Ontario (TVO). While TeachOntario is discrete from the TLLP, as will be discussed below, TLLP teacher leaders have played a substantial role in the beta testing, implementation and ongoing development of TeachOntario. As part of our TLLP research focus on knowledge exchange, we are exploring TeachOntario as a mechanism to support TLLP projects further their knowledge creation, sharing and application. TeachOntario is a much larger initiative than only the components directly involving TLLP teacher leaders and projects; however, the scope of our TeachOntario case study is focused on the direct interconnections with the TLLP. We outline our initial TeachOntario case study research in this report; a fuller case study with further work in 2016-17 will be reported next year.

### 2.8.1 TeachOntario: What is it and How Does it work?

TeachOntario is an online platform to support sharing, collaboration, and knowledge exchange amongst educators across Ontario. These educators include teachers, administrators, and other education staff (e.g., Early Childhood Educators, Educational Assistants). It is hosted and maintained by TVO, a publicly-funded, provincial digital learning organization whose strategic plan “delivers on [its] mandate as Ontario's partner for digital education and as the public space for Ontario-perspective current affairs” (TVO, 2016). TeachOntario is an example of the innovative digital resources that TVO provides to Ontario's education community (and beyond) in support of developing the potential and capacity of the public education system. According to Karen Grose, TVO Vice President, Digital Education: “It is a common digital destination for all learning leaders.” Specifically, TeachOntario offers opportunities to “support teacher professional learning, foster teacher leadership, and facilitate the



sharing of exemplary practices with other" (TeachOntario, 2016). TeachOntario *Fast Facts* provide more details about the platform (see Box 1).

Box 1. TeachOntario Fast Facts

- TeachOntario provides a tremendous opportunity to promote professional learning, foster teacher leadership, and facilitate the sharing of exemplary practices with others for the broader benefit of Ontario's students
- Educators are registering from right across the province, including English Public, English Catholic, and French Language sectors
- Educators have created over 300 Groups in which they are sharing and collaborating. Inquiry-based learning, Blogging, iPad Apps, Google Apps for Education, and Supporting Mathematics are sample types of these groups
- Educators are engaging in professional dialogue by talking, tweeting, and blogging, uploading files, and posting video, images, and messages

(Reproduced from TeachOntario. (2016). *About Us: TeachOntario, powered by TVO*.

Toronto, ON: TVO. Retrieved from: <https://www.teachontario.ca/docs/DOC-1343>

The TeachOntario platform is divided into three key spaces to facilitate ease of access: Explore Curated Resources (EXPLORE), Share Your Knowledge (SHARE), and Create Projects (CREATE). EXPLORE is openly accessible and anyone around the world who has access to the internet can access the resources available in each of its two main subsections:

- *Professional Learning Opportunities* offers a wide variety of resources to support professional learning such as the TeachOntario Talks series, the Professional Learning Series webinars and videos, teachers' blogs, online courses and book clubs, among others.
- The second section of EXPLORE, *Curated Resources*, provides immediate access to a wide variety of useful resources such as provincial curriculum and support organizations/websites (e.g., EduGAINS, Ontario Educational Resource Bank, LearnTeachLead); access to provincial, national, and international research programs and findings; TVO digital resources; and resources directly aimed at developing Parents as Partners in their children's education.

The teachers interviewed for this report often referred to this section as "one stop shopping" for educators, noting the ease at which they can find out about and gain access to the diverse resources supporting teaching and learning through Ontario's extensive digital support infrastructure.

The SHARE and CREATE sections of the platform require users to be registered with TeachOntario, which means that they must have an email address from one of Ontario's 72 school districts, 10 school authorities and other approved institutions (e.g., Faculties of Education and partners in learning). When users register on TeachOntario, they are asked to create a user profile that is visible to other TeachOntario members as a way of facilitating connections among and between Ontario educators. Users are free to choose how much or how little information they wish to share; there are no specific requirements other than indicating your name, school, and school district. Once they have registered with TeachOntario, members are free to peruse and participate in the conversations that are happening within groups in the SHARE and CREATE communities.

SHARE and CREATE are similar spaces in the sense that they are conversational spaces where users can engage in interest-specific groups. In SHARE, users can create their own groups focused on teaching and learning, and can choose to 'follow' or 'join' discussions or groups already in progress and receive notifications in their inbox when new activity has been posted. Members may also contribute to the conversations by adding a comment or uploading new content (e.g., video, documents, files). CREATE is a similar space in that members can participate in existing project groups (e.g., formal groups such as TLLP or PKE) or create new, informal groups of their own in the My Projects subsection. What groups in both SHARE and CREATE offer TLLP teachers and the TeachOntario membership more broadly is the opportunity to engage with each other at their own preferred time, space and pace—educators can limit their participation to perusing information and resources shared online or they can actively participate in the group conversations by commenting and responding to their colleagues, in both cases learning from and with each other.

TeachOntario provides informal mentoring and opportunities for mutual support for educators across the province as they engage in their own learning inquiries, and co-construct, share and develop professional knowledge and expertise with the larger community. Educators build trust in these communities as well as confidence in their own knowledge and skills and in that of their colleagues. By enabling educators to interact with other participants in the TeachOntario community through multiple modalities (i.e., status updates, discussions, blog posts, files, documents, polls, videos, events and idea-sharing), teachers are able to make their learning visible through multiple modes of interaction. TeachOntario's responsiveness to educators' needs and feedback has contributed to its success.

## 2.8.2 The Evolution of TeachOntario

### 2.8.2.1 From Idea to Prototype

The “idea of creating a digital space that would grow into a learning ecosystem” was initially generated by colleagues Karen Grose and Jim Strachan who, at the time, were employees of the Toronto District School Board (TDSB). After being hired as Vice President of TVO in January 2014, Karen had an opportunity to suggest the idea of an online platform for teaching, involving TLLP teacher leaders, to a meeting of the TLLP provincial partners from the Ministry, OTF and affiliates. The idea was positively received, but because none of the members present at this meeting were practicing teachers in classrooms, the group decided to conduct an initial focus group discussion with TLLP teachers in March 2014 to gather and explore their ideas, opinions, and perspectives about a digital space to support teacher learning and knowledge exchange.

This initial group was comprised of a diverse mix of teachers representing a range of teaching assignments and locations across a wide continuum of technological skills. During the focus group, participants were asked the following questions:

*If you were going to build a platform for all of Ontario's teachers to intentionally share their knowledge and practice, what would you think would be important to do in that platform? What features would you like to see in that platform? What type of culture could we build in that platform and how?*

The teachers generated a wide variety of ideas, some practical and possible to incorporate into the design and some less practical that would be extremely difficult to implement. The point of seeking input from the group was to determine if the concept was valid, what criteria were essential to include in such a concept so that it was responsive to teachers' learning needs, and to ensure that if the concept moved from ideation to prototype, each step of that process would be “[co-]constructed by the learners themselves.” (TVO Team, 2016)

Based on the focus group feedback, the TVO team “built kind of an empty shell that met the requirements that the teachers [identified]”. In May 2014, a second focus group (including members of the first group along with an additional ten or so teachers from across the province) provided further feedback on the initial prototype. This group of teachers emphasized the desire to de-privatize practice and the need for different types of user experiences; they wanted a variety of tools that allowed them to interact and participate in the space in a variety of ways according to their own learning styles and technological abilities. The prototype, which at that time contained only the EXPLORE and SHARE sections (albeit with limited content), went live in June 2014. At this time an additional 20-30 educators were given access to the site; these individuals were friends or colleagues of those who had already

been working with the site who had expressed interest in participating in creating and evolving the TeachOntario prototype.

### 2.8.2.2. Testing It Out: Phase I Beta

The initial beta phase (or test year) of TeachOntario began in September 2014. By this time, TeachOntario's membership had grown to 187 members simply by word-of-mouth and it would grow to 1,800 educators by the end of Phase I Beta in June 2015 (see figure 5 for a timeline of TeachOntario's development including membership numbers). It was at this point in time that TeachOntario's membership began to evolve, expanding beyond TLLP teachers.

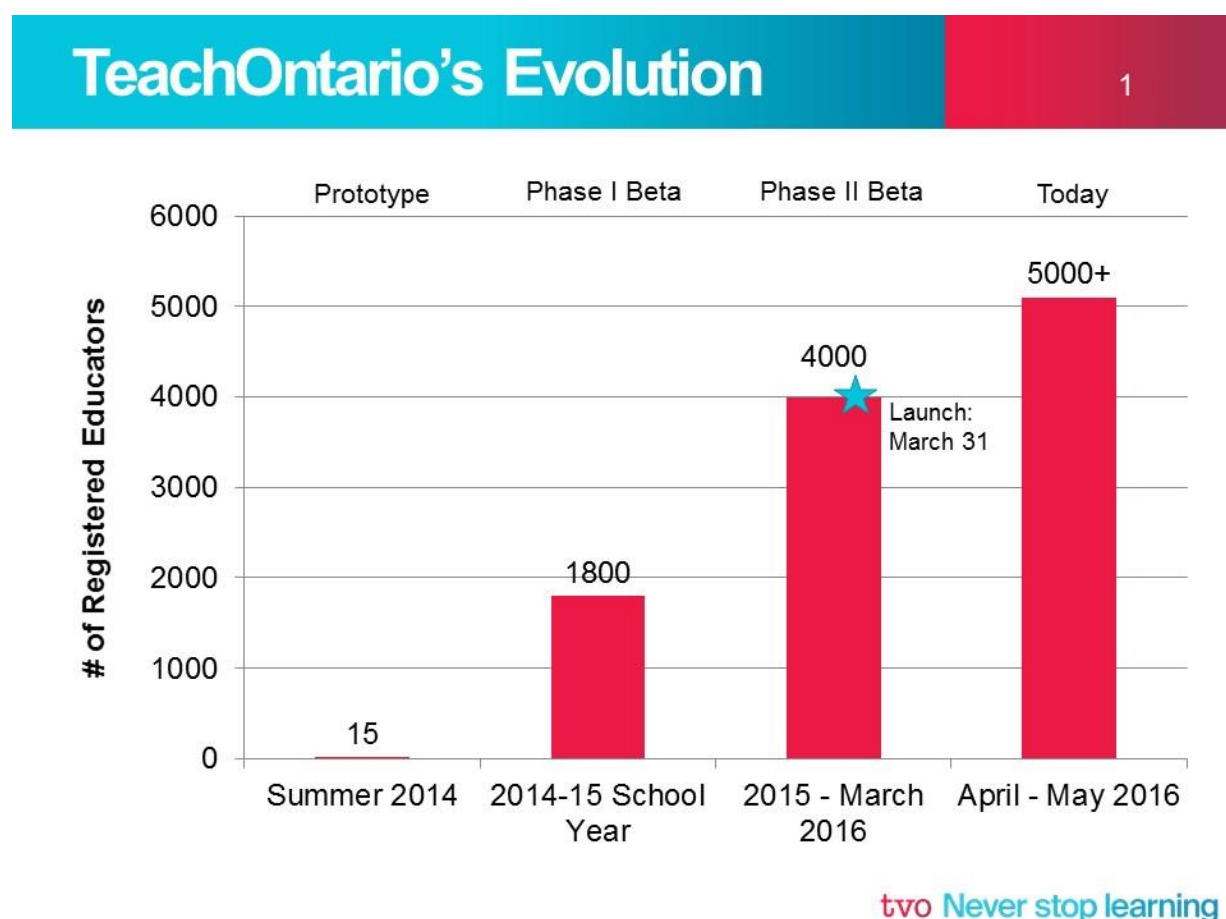


Figure 5. The evolution of TeachOntario. (Source: Grose, 2016).

In this first early beta phase, TeachOntario contained two main sections—EXPLORE and SHARE—that were both closed and restricted to site membership. However, it was during Phase I Beta that some educators (often TLLP teachers) began to express their desire and readiness to share their learning beyond Ontario. To respond to this request by the TeachOntario community, TVO made the decision to make the EXPLORE section of the platform openly available and accessible worldwide.

Due to requests from the TeachOntario community for an online space for formal and informal collaborative project development, TVO added a third space called CREATE. CREATE provided a space for formal projects including TLLP and PKE project groups, and informal projects (e.g., projects not formally funded by programs such as TLLP) that were created by teachers who wanted to pursue their own inquiries. TeachOntario broadened the mentoring web “beyond the accidental geography [of schools and school boards] or friendship” and was perceived by many TLLP teachers as a place for continued learning and conversation. By promoting sharing learning beyond the TLLP, TeachOntario, as a broader vehicle itself, is a forum for provincial knowledge exchange.

### 2.8.2.3 The Pilot Year: Phase II Beta

The official second phase beta year for TeachOntario was 2015-16. In February 2016, the platinum 2015 IPAC/Deloitte Public Sector Leadership Award was presented to TeachOntario, recognizing its outstanding leadership and innovative approach to grass-roots professional learning and service in public education. The TeachOntario site was officially launched on March 31, 2016. From concept-to-prototype-to-beta-to-launch, TeachOntario continues to be a responsive and flexible platform that is consistently evolving as a result of the feedback and suggestions from participating educators. In a sense, because of its co-constructivist approach, TeachOntario functions in perpetual beta given its openness to and desire for change based on educators' needs.

TVO tracks Google Analytics data, measuring the traffic that flows through TeachOntario on a monthly basis. Table 28 shares the Phase II Beta TeachOntario data. It is important to note that Google Analytics data is available only for the TeachOntario site as a whole—there is no data specifically for the TLLP-related portions of the site other than total number of page views that can be seen for each post on the site. One must keep in mind that these data do not exclude repeat page views or monthly sessions. Therefore, these numbers should be read as aggregate values that do not represent individual users (i.e., if one person visited a particular page more than 30 times, it would be counted as 30 page views, not as a single visit from one particular user). Figure 6 elaborates upon the *Page views: Global* measure in Table 28, illustrating that TeachOntario is being accessed by educators from across the world.

Table 28. Google Analytics Data for Phase II Beta of TeachOntario.

Month	# Monthly Sessions	Average Duration on Site	Average Pageviews/Session	Pageviews: Ontario	Pageviews: Global
<b>2015</b>					
July	3 055	5 m 35 sec	6	18 246	3 373
August	4 966	4 m 30 sec	4.7	23 275	6 057
September	6 281	5 m 55 sec	6.1	38 575	3 536
October	7 759	7 m 28 sec	7.2	55 534	3 198
November	7 906	6 m 51 sec	6.5	51 425	3 307
December	5 026	6 m 49 sec	6.9	34 579	2 697
<b>2016</b>					
January	6 734	6 m 58 sec	7.6	50 855	2 829
February	8 735	6 m 31 sec	6.3	54 894	2 832
March	10 887	5 m 00 sec	5.2	51 593	4 587

Note:

Page views: Global includes all Canadian provinces, excluding Ontario.

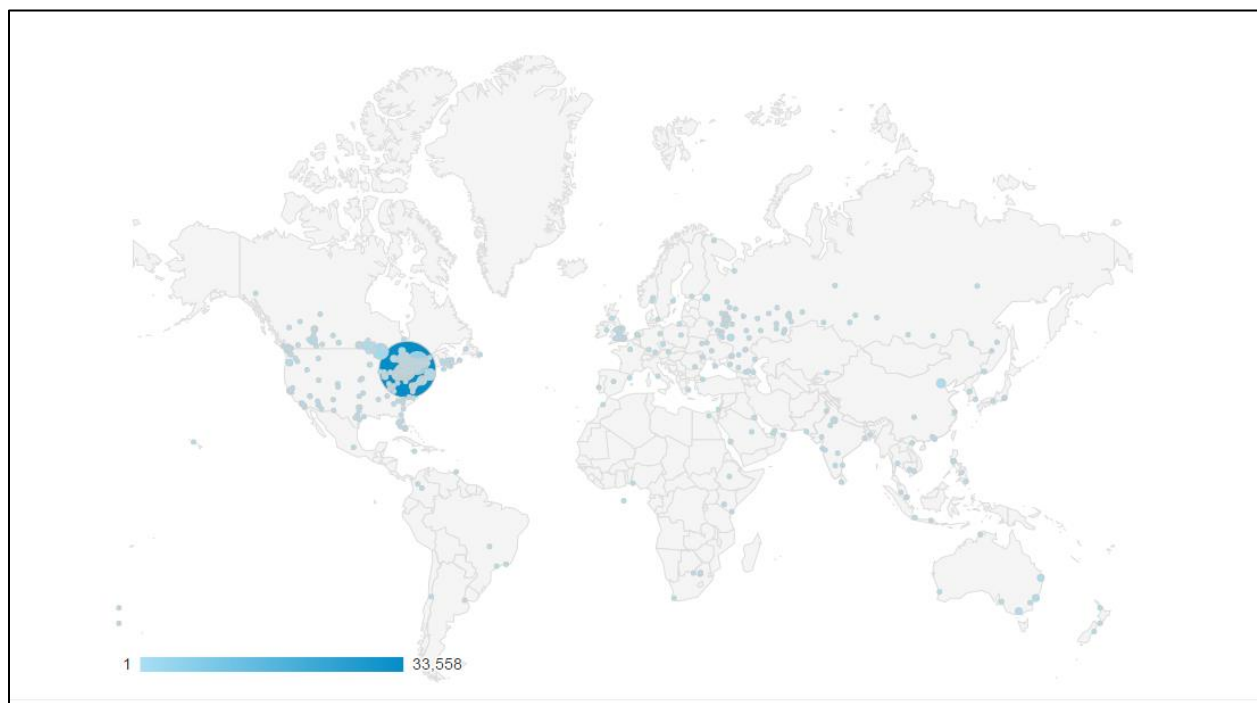


Figure 6. Disaggregation of Page views: Global measure by city.

### 2.8.3 Highlighting the TLLP on TeachOntario

From its very beginning, TeachOntario has been highlighting the work of educators involved in the TLLP. By the end of Phase II Beta, the TLLP had an established presence across the three sections of TeachOntario. The salience of the EXPLORE section in relation to knowledge mobilization activities is particularly important given the global audience for this content, which as the Google Analytics data indicate, is active within the TeachOntario community. The most visible platform for sharing the TLLP learning within EXPLORE is TeachOntario Talks, a series of publicly available, short articles that shine the spotlight on “exemplary teaching and learning practices for the broader benefit of Ontario’s students” (TVO, 2016). Since the beginning of the series, TLLP projects have been the subject of thirteen TeachOntario Talks. Some of the most popular posts in this series have highlighted TLLP educators’ work. Table 29 provides data on the eleven projects posted during the Phase II Beta year, including the title of the TeachOntario Talks article, the focus TLLP project and project lead, and how often the page had been viewed through to TeachOntario’s official launch on March 31, 2016. By the end of March 2016, the number of view per Talk ranges from 510 views to over 3000.

Table 29. TeachOntario Talks Profiling TLLP Educators and Projects

TeachOntario Talk Title	TLLP/PKE Project	Project Lead & Board Name	Date Posted	# Page Views (EXPLORE - open access)	# Discussion Views (Restricted to site members)	TOTAL
Culture & Tech Help Engage Northern Indigenous Teens	<i>Cultural Connection and Tech Make School More Relevant for Indigenous Teens</i>	Vicky Walker, Lakehead DSB	07-Mar-16	492	18	510
Using Technology to "Bridge" a School Community Together	[same]	Colleen Rose, Superior Greenstone DSB	22-Feb-16	793	35	828
Blended Learning and the 21st Century Learner	[same]	Maureen Asselin, Halton Catholic DSB	24-Jan-16	1122	36	1158
Teamwork Drives Student Engagement in Math	[same]	Johnathan So, Peel DSB	23-Nov-16	1135	35	1170
Using Self-Regulation Practices to Support Learning	[same]	Marc Cote, Centre Est	13-Oct-15	954	32	986

Using Authentic Media Texts to Improve Learning	Using Authentic Media Texts to Engage Students and Improve Learning	Derrick Schellenberg & Angie Barrett, York Region DSB	28-Sep-15	1216	62	1278
Using Accountable Talk in the Classroom	Classroom Chit-Chat: Using Accountable Talk in the Classroom	Kim Savoie & Erin Briska, Northwest CDSB	14-Sep-15	1421	42	1463
Bringing Itinerant Teachers into the Now Generation	[same]	Leslie Boerkamp, Bruce-Grey CDSB	31-Aug-15	1306	33	1339
Teaching Team Supports Inquiry-based Learning with Tech Tools	Inquiry-based Learning with Tech Tools	Michelle Cordy & Lisa Morris, Thames Valley DSB	24-Aug-15	3029	66	3095
Tap into Teen Minds	[same]	Kyle Pearce, Greater Essex County DSB	01-May-15	2674	39	2713
Enriching Learning & Teaching with Chromebooks	Success for All Students: 21st Century Teaching/Learning using Chromebooks & a Blended Learning Model	Rolland Chidiac, Waterloo CDSB	15-Apr-15	1936	48	1984



TLLP educators are also visible within the community through posting blogs and leading webinars as part of the Professional Learning Series for which archived videos are made public through the Professional Learning Videos link in Explore. There are more than half a dozen TLLP educators contributing blogs to the Teacher Blogs page and about a quarter of the Professional Learning Series videos are hosted by former or current TLLP project leaders. As we will discuss shortly, their individual TLLP learning experiences often helped develop teachers' self-confidence and encouraged them to take the risk to become visible learning in these spaces that extend beyond their own TLLP projects. TLLP educators were integral in the early development of TeachOntario and they continue to maintain a strong presence in the broader TeachOntario professional community.

#### 2.8.4 How are TLLP educators engaging with TeachOntario to share their TLLP learning?

There is a dedicated space in the CREATE section of TeachOntario where TLLP groups can create a digital home for their projects. Over the time period of its inception through to the official launch of TeachOntario, there were twenty-four TLLP projects active within the community. All TLLP projects are tagged with *tllpcreate*, which allows users to search for this tag and locate these TLLP learning communities. To explore the activity within the TLLP groups, we used social network analysis (SNA) methods to explore the patterns of interaction within this *tllpcreate* community. This approach allows us to develop an accurate picture of the pattern of activity within this 'network', that is, those groups tagged with *tllpcreate*. It is important to keep the *tllpcreate* frame in mind when considering these findings as TLLP educators interact with TeachOntario in multiple ways that extend beyond the *tllpcreate* groups. Nevertheless, this approach to mapping network activity gives us an understanding of how educators are interacting with each other in the formal TLLP communities.

Figure 7 presents a social network map that includes all of the interactions that individual people (the coloured circles) have with TLLP groups (the blue squares). The black arrows signal a tie between individuals and their affiliated group meaning that this individual has interacted in some way within the context of the particular TLLP group. An interaction was counted for each time a person *posted* new content in the group, or *liked*, *bookmarked*, or *commented* on an existing post within a particular group. Every visible interaction within each of the *tllpcreate* groups—that is, every interaction with the community that left a visible artifact (comment, thumbs up, or bookmark)—was counted and included in this dataset. By

doing so, we were able to create a map of overall activity, which shows that 145 people interacted at least once within one or more of the *tlpcreate* groups. In total, there were 264 ties recorded across the 24 TLLP groups.

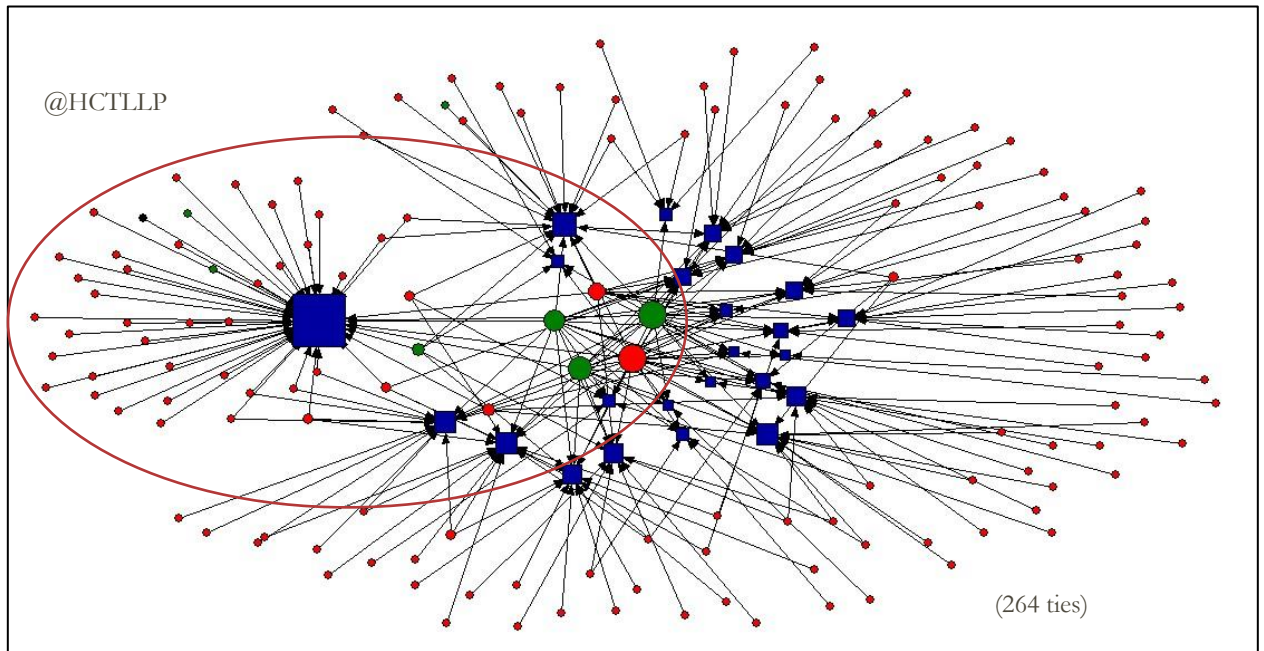


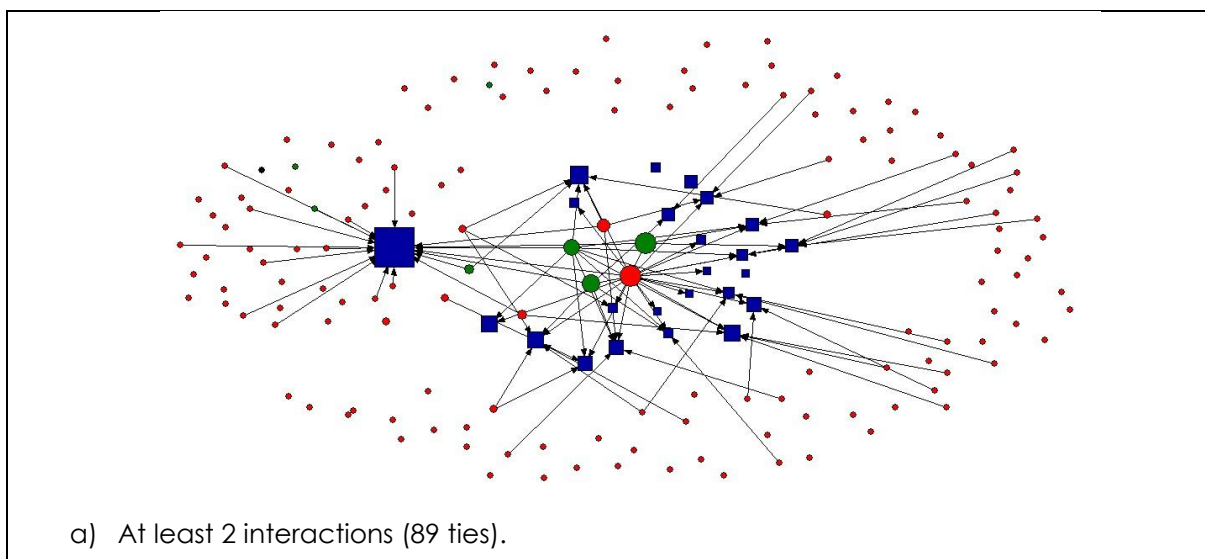
Figure 7. Pattern of overall interaction across formal TLLP groups (tagged *tlpcreate*), where blue squares = TLLP groups, red circles = educators employed at school or district level, green circles = employees of TVO or the Ministry of Education, and black circles = others employed in the field of education. Group S is the most active group within this network.

In this network map, the sizes of the circles and squares vary. Size is determined based on *degree centrality*, a social network measure of activity. The bigger the *node*—that is, each shape that represents a single actor in the network—the more interactions that individual or TLLP group is involved with in the network. In essence, degree centrality is a measure of popularity or prominence in a network. In the *tlpcreate* network, we can see that there is a small number of people representing a mix of school district educators and TVO or Ministry staff who are interacting within the groups more often than others; their nodes are much larger in size than the majority of others. When actors have the maximum degree centrality score of 1.0 in a network, it means that they have connections to every group within the

network. The average degree centrality score for individuals in this network (represented by the circles) is low in the *tlpcreate* network ( $M = .076$ ,  $SD = .132$ ,  $min=.042$ ,  $max=.958$ ), characteristic of low density networks such as this one (i.e., networks without abundant ties). Most people within this community connect with only one TLLP group.

Similarly, there is variation in the levels of activity within groups as indicated by the size variation in the squares. When focusing on the activity of groups as measured by degree centrality (i.e., the number of ties received by each group), we see similarly low scores ( $M=.076$ ,  $SD=.064$ ,  $min=.021$ ,  $max=.338$ ), which is expected given the interdependence between these two variables. Some groups are more active than others within this space and are highly visible in the network; for the time period examined for this report, the *Effective Teaching and Learning in the Digital Age - @HCTLTP* group dominated network activity (as highlighted in Figure 7).

Figure 8 provides illustrations of the network when we include only those individuals who have been active in the network at least 2, 5, and 10 times. We've left all of the people from the original graph in figure 7 in these new illustrations to highlight the number of people who become *isolates* (i.e., people with no connections) once we change the threshold for inclusion. What we see in figure 8 is that by increasing the threshold for inclusion to a minimum of two interactions, the number of relations within the network reduces by two thirds (from 264 ties to 89 ties); it continues to decrease as the threshold value increases.



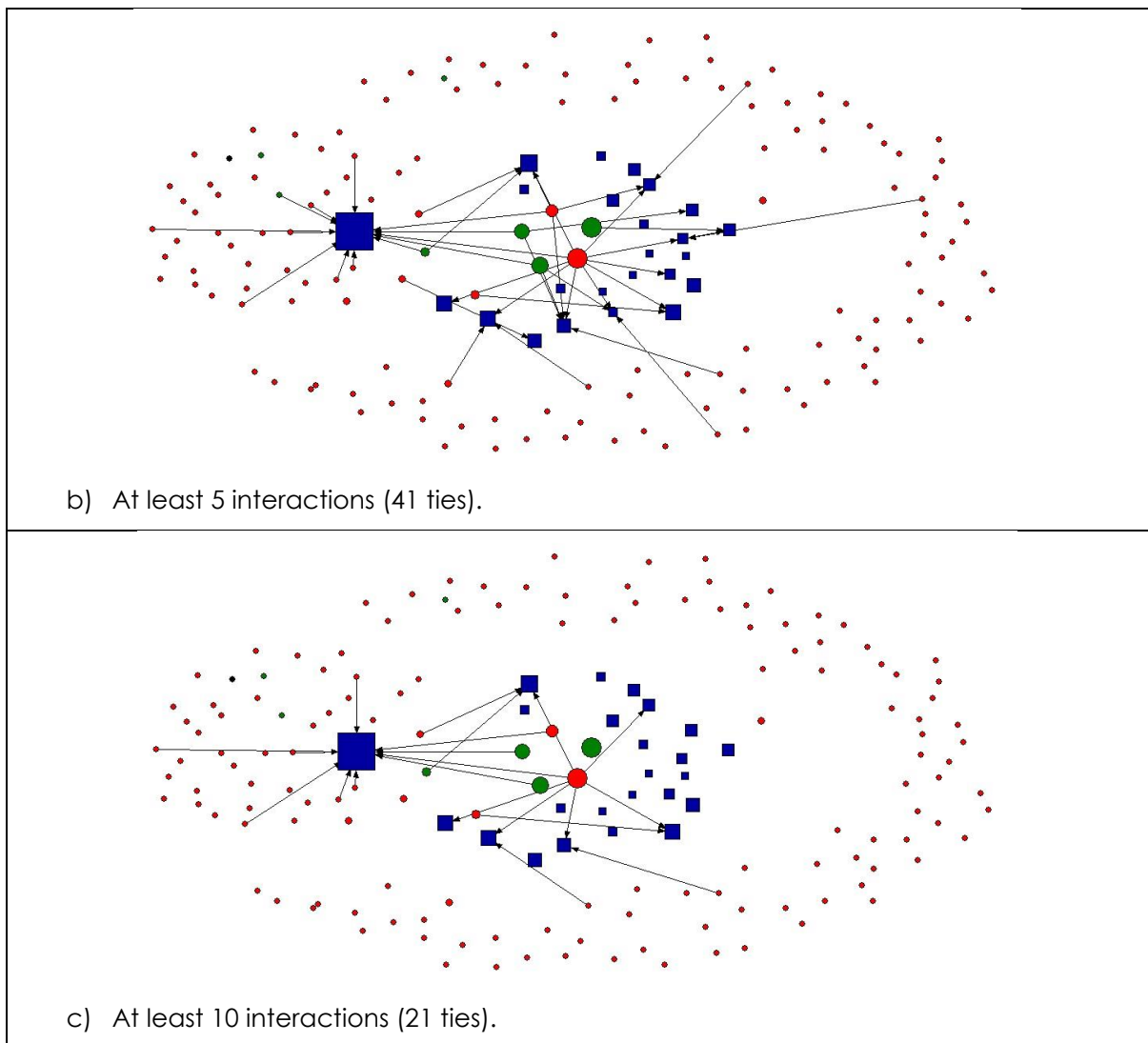


Figure 8. Network maps for *tllpcreate* groups at various minimum thresholds for inclusion set at 2, 5, and 10 interactions.

But why does this matter and what does it mean for the TeachOntario community? Different social network patterns have different consequences for knowledge exchange and construction. A central focus in social network analysis is the strength of ties, or rather, how strong relationships are within a network. For example, an acquaintance (someone whom you don't know really well but speak with occasionally) is considered to be a weak tie whereas a friend (someone with whom you interact frequently and share personal information) would be considered a strong tie. Within the context of knowledge exchange, a key priority for both the TLLP and TeachOntario, weak ties can enable individuals to learn about new ideas and gain access to new information (Burt, 1992, 2005). However, strong ties

are needed for the exchange of tacit or complex knowledge (Hansen, 1999) and they develop social resources such as trust and collaboration (Coleman, 1988), which are vital to meaning-making activities required to put this knowledge to use. While weak and strong ties are situated at opposite ends of the continuum, both are necessary to facilitate knowledge exchange (Haythornthwaite, 1996). What we see in the *tlpcreate* overall activity map is a network of predominantly weak ties when considering frequency alone. TeachOntario is facilitating access to new ideas and information; however, the development of stronger ties through increased engagement and participation by *tlpcreate* members is important to consider for achieving networks for constructing new knowledge or exchanging complex knowledge.

#### 2.8.4.1 Example of a *tlpcreate* Group: Patterns of Interaction within @HCTLLP

Given the finding that most members are interacting with each other within a specific group, we decided to explore the activity within one of the TLLP groups to learn about what is happening within this context. Because it was the most active *tlpcreate* tagged group, we chose to focus on *Effective Teaching and Learning in the Digital Age* - @HCTLLP, a TLLP project during 2015-16 led by Emile Ferlisi with his colleagues at Holy Cross Elementary School in the Dufferin-Peel Catholic District School Board. A description of this TLLP group is provided in Box 2.

##### **Box 2. Description of Effective Teaching and Learning in the Digital Age - @HCTLLP.**

*Effective Teaching and Learning in the Digital Age* (Extract from TLLP application)

The project team would focus on incorporating various digital learning tools, including websites and other online resources as well as different devices and software options, as part of our daily practice. Periodically (every six weeks), the team would meet to share our resources and success stories, along with any missteps along the way that have also led to learning—documenting our learning and our students' learning would be paramount to this process. Our inquiry starts with assessment for learning, includes assessment as learning, and ends with assessment of learning for both students taking part in the project and the teachers participating on the team.

The inquiry is led by the questions:

1. If we incorporate a variety of effective digital learning tools and strategies into our classrooms, then student engagement, achievement and wellbeing will improve as evidenced by improvement in student achievement.
2. If we share the effective digital learning tools and strategies that we use in our classrooms with each other, then our confidence and efficacy in using these tools will improve, which will enhance our teaching practice and improve student achievement.

When all types of visible interactions (i.e., likes, bookmarks, and comments) are included in the dataset for the @HCTLLP *tlpcreate* group, 49 educators from across the province—about a third of all educators identified as participants across all of the *tlpcreate* groups—are interacting with this group at least once, including 12/13 of the formal TLLP group members and three additional non-TLLP faculty at Holy Cross Elementary School. Table 30 provides a description of the educators' characteristics, including the region of Ontario in which they work, the grade level taught (elementary or secondary), the type of school district (English/French; Public/Catholic).

Table 30. Characteristics of participants in the @HCTLLP *tlpcreate* group.

Characteristic	n (N=49)	% <sup>a</sup>
Region		
Toronto	11	23
Central	30	61
East	0	0
West	2	4
North	4	8
Unknown	2	4
Level		
Elementary	23	47
Secondary	3	6
Board Office	4	8

Other <sup>b</sup>	9	18
Unknown	10	20
School Board Type		
Public	13	27
Catholic	27	55
Other	8	16
Unknown	1	2
Language		
English	48	98
French	0	0
Unknown	1	2

<sup>a</sup> Percentages may not equal 100% due to rounding.

<sup>b</sup> 'Other' refers to organizations such as TVO or the Ministry of Education.

We decided to focus on the patterns of interaction among those people who were commenting on posts within the @HCTLLP group in order to deepen our understanding of the content on interaction among group members. Although they provide a visible artifact of interaction, liking or bookmarking a post are more passive forms of participation; hence, we decided to focus on the comments posted within the group in order to examine the content of interaction. Figure 9 illustrates the patterns of commenting within the @HCTLLP group. As in previous figures, the blue squares represent each of the posts within @HCTLLP (N=51) and each red circle represents a single person who commented on a particular post (N=29) as indicated by the lines (or ties) between the circles and the squares. The size of the node indicates its level of activity within the group; the bigger the circle, the more comments that individual made, and the bigger the square, the more comments that post received.



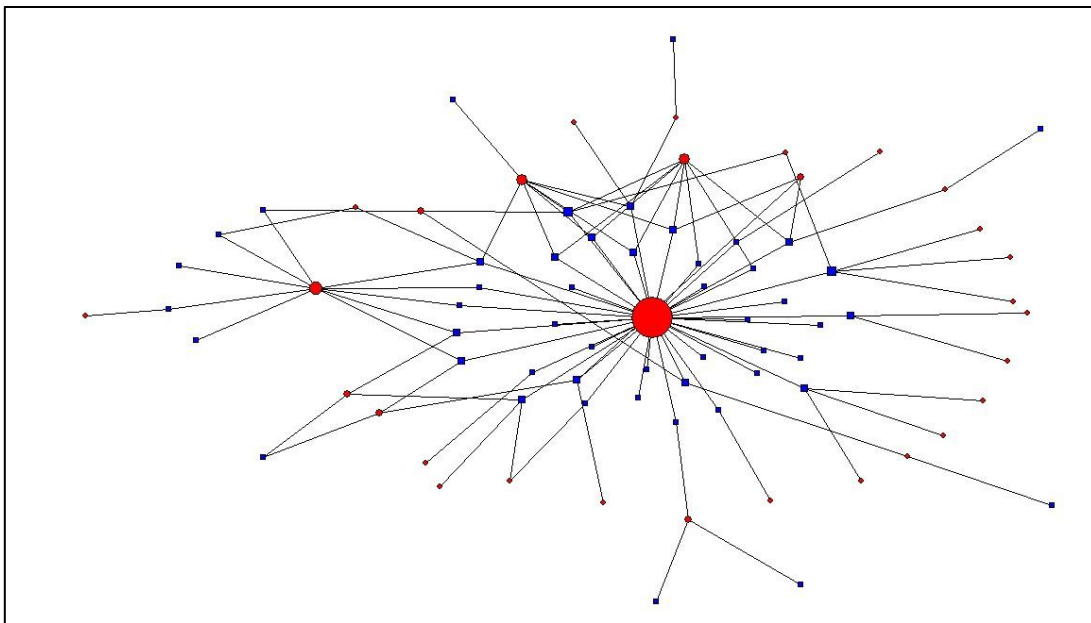


Figure 9. Patterns of comments within the @HCTLTP group in TeachOntario>Create.

In total there were 135 comments made by 29 different people across the 51 posts (consisting of 33 blog posts, 13 videos, 2 polls, 2 discussions, and 1 question). This map shows us that there is little variation in the number of comments each post received given that the squares are fairly uniform in size. When you consider the number of comments at the level of the individual instead of the post, a somewhat different story emerges. The range in node size for people (i.e., red circles) indicates much greater variation in activity in comparison. There is one person (the group's leader) who posted comments far more frequently than the others. A descriptive analysis of the frequency of posts indicates that the median number of posts per person was 2 (minimum = 1, maximum = 55), with an average of 3.375 ( $SD=9.834$ ). In terms of posts, many of the posts originate from the formal TLLP group members and are often forms of reflection on what is happening in their classrooms. At other times, these members are writing about thoughts that have come to mind through this work or sharing news about upcoming events that may be of interest to others within their learning community. The comments generated by these posts have a tendency towards serving a social support function. Many of the comments examined thus far are expressions of gratitude for the post; for example, "As I read all of the things [the] TLLP Team have been learning, [it] sounds really exciting to me. Please continue to spread the wealth" (TeachOntario member). Members are also offering re-assurance and validation to the



educators who dare to make their learning visible online with comments such as, “Some great insights... I understand totally how you feel overwhelmed at times as we are trying to implement so many new apps with our students. Hang in there, your students will benefit from all of your hard work.” Other comments include statements of commiseration with the author’s experience, connecting other content related to the post, and reflections on how the posts relate to personal professional experience. Generally speaking, our initial analysis suggests that the preponderance of comments within this group serve the function of “solidarity talk” (Aitchison & Crystal, 1997) or communication intended to strengthen social ties. References to what is happening in the classroom in their home school(s) seems to be a key aspect of post content and highlight that posts provide a ‘glimpse’ into the complex learning that is happening in real time.

### 2.8.5 What are the impacts of participating in the TeachOntario community for TLLP teachers’ learning?

We interviewed a focus group of four teachers who have been active users of TeachOntario throughout the beta years. In fact, all of these (former TLLP) teachers participated in the initial brainstorm during the development phase of the platform. In the interview, we focused on asking these educators how they used TeachOntario to share their learning beyond their TLLP team and what impact those efforts had on their professional practice. In this section, we elaborate those findings and highlight three key points: 1) the platform acts as a source of empowerment and encouragement to share, where the TLLP was often an entry point for its use, but they used the online platform in ways that extended beyond their TLLP projects; 2) teachers’ use of TeachOntario provided a means to model professional learning to others; and, 3) TeachOntario provides an opportunity for continuous learning, building upon and extending the learning from within the TLLP.

#### 2.8.5.1 Developing Confidence and Sharing Expertise

There was consensus within the group that their TLLP experiences were integral in developing their self-confidence and encouraging them to share what they were learning within their individual projects with others. Consequently, these educators began using TeachOntario as a place where they could make their own expertise visible to others by openly posting blogs and other learning materials in order to engage with others. One teacher explained that where her initial involvement with TeachOntario was through her TLLP and subsequent PKE

projects, “it’s kind of blossomed and it’s also taking us where teachers are going [with new professional inquiries]”. While these teachers used TeachOntario as a means to share their TLLP learning, they were also using TeachOntario as a means to connect with their colleagues around the province to learn about their experiences, what was working in their classrooms, what wasn’t, and so on. TeachOntario was a platform where these TLLP educators could find others who were interested in similar topics (be it their TLLP topic or otherwise), offering them opportunities to explore common interests, co-create materials, and in some cases, connect their classrooms in joint learning activities. The most frequent users of TeachOntario were perceived to be current or past TLLP veterans, and our network analyses of our sample data confirm this perception. Examples of quotations from the focus group teachers concerning the initial role of TLLP in encouraging them to engage TeachOntario as a platform for sharing their learning and making visible their own professional expertise include:

*Two years ago, there is no way I would have shared what I do every day online or even in front of people, and it’s only through the TLLP that I am able to do that. Part of it was student success and student achievement, but more of it came from that teacher learning and that leadership role.*

*My thing is kind of teaching is shut the door, close the blinds, I’ve got 25 kids or 30 in some cases and you’re doing your stuff and that’s fine and there’s just limited opportunity to share. So sometimes I want to access other people’s expertise, sometimes I want to share what went wrong or what went well, and so to me TeachOntario is a perfect place to engage in that dialogue and I find a lot of the people who are on it are similar in their mindset. They just want to share or connect or whatever and what I like is that you can interact with it in terms of really specific aspects.*

*If you look at TeachOntario in terms of some of the most active, productive, contributing people... they’re either in their TLLP at the moment or they’ve done a TLLP. So, if you looked at all of the, let’s call them, the major players or speakers or whatever you want to say, they are all TLLP veterans or they are doing their TLLP year. So I think it has kind of*

*empowered them to share, which is kind of key to the TLLP's overall purpose: You must share your work.*

#### 2.8.5.2 Modeling and Inspiring Professional Learning

By the nature of its design, TeachOntario can be considered an online professional learning community. Participation on the TeachOntario platform provides an opportunity for TLLP teachers to model professional learning for others within the larger community. In turn, witnessing colleagues' learning has been a source of inspiration for their own work.

Many of the participants described using TeachOntario as a tool for pedagogical documentation. Some of these teachers' TLLP groups used TeachOntario as an online repository for all of their materials and as a space to document and reflect on their learning through tools such as blog posts. In some groups, it was only the lead teacher that was sharing their learning on TeachOntario rather than all TLLP teacher members. Nevertheless, regardless of the level of complete group participation, all of these groups were using TeachOntario in some way to share what they were learning online.

Similarly, as a result of their TLLP experience, some teachers are using TeachOntario as an instructional tool as well. For example, for one teacher in northern Ontario who occasionally teaches in the local university's teacher education program, TeachOntario has become a tool that she introduces to novice teachers who often find themselves working in remote northern communities. Using her own experience and personal knowledge of the platform as an example, she introduces TeachOntario as a space where they can begin to build their own professional community that can be accessed from the remote northern communities where many of these young teachers find themselves starting their careers. For another teacher, TeachOntario has become a tool that she uses with students in her class, using it as a gateway for them to gain access to the digital tools available through TVO. She also uses TeachOntario as a means to connect with other teachers and classrooms with whom she has engaged in collaborative work.

The following quotations from teachers provide examples of how they engage TeachOntario for the sake of their own and others' learning:

*And that's what I find inspiring about [TeachOntario] is seeing the connections ... All of you are so inspiring as far as what is giving to other*

teachers in the fact that you are such super users. I don't think you understand the impact that you've actually had on other teachers' practices too. So it goes further, I think, than any of you even realize.

So basically what happened, every time we met, every time we presented it, every time we did PD at our school, and when I say "we," I really mean "me," documented it on TeachOntario. So we took pictures, we described it, sometimes we got feedback from the people who presented but I was just looking at it as the suggestion had been made to transition to TeachOntario and it was a perfect place to curate the progress we were making. So just along the way, every time we did something, it went up there and it was partially for us and it was partially for other people to see and possibly interact with and ask us questions about and that sort of thing.

A lot of my students, I teach Indigenous Studies Curriculum and Instruction, well most of my students actually have jobs, even though I've really only had 12 or 15 of them, but they all end up going north, where they're in like Kenora, so when they end up entering the field they tend to be young teachers, again only the one year program until now, those limited instructional background and they're going to communities where they might be the only person teaching in that subject area or even in that grade. So I get them onto the TeachOntario site and show them the framework of it and I actually have them on there doing more work and trying to make connections so that when they are more isolated they have those connections and have that ability to find information and to find mentors.

The one thing that I love about it is there are classrooms that I've connected with. There's one way up North. It's a grade 5/6/7/8 classroom. I would never have met that classroom or that teacher and we just discuss "Problem of the Week" from the University of Waterloo. That's all we discuss, each of our ideas... We never would have met unless it was TeachOntario and we just share what we are doing in our class.

### 2.8.5.3 Continuous Professional Learning

“At some point we're students and at some point we're teachers,” one teacher expressed during the focus group. Throughout the focus group, all teachers emphasized how they continue to engage with TeachOntario in support of their own professional learning. For some, this engagement includes sharing their learning through their PKE activity; for others, it's continuing to build and extend the learning from their previous TLLP or following new professional inquiries. Teachers described the TLLP as being the impetus that pushed many of them to look outside their typical professional networks to look for external learning opportunities. TeachOntario provides an easily accessible and safe community within which to do so.

These teachers spoke about the daily renewal of content on TeachOntario; every day something new is available to be explored. Frequent users of the platform talked about how they use their connections with others, through their activity on TeachOntario, as bridges to new sources of information and ideas. For example, if someone with whom a teacher shares common interests were to like, comment, or share some information from another colleague on TeachOntario, this new material would be brought to their attention. Or they could be following a particular topic or group and receive notifications when new content is posted. One teacher, inspired by her learning within the TLLP, uses TeachOntario as a way to start new collaborative projects with other teachers in the province (mostly whom she has never met in person) to work on new interests. TeachOntario is viewed as a positive and easy way to connect with and learn from other educators across the province. And most importantly, these educators firmly believe that their students are benefitting from their learning.

Teachers are also bringing their learning from TeachOntario back to their home schools. A couple of teachers in the focus group described how they will often offer workshops or learning sessions for interested colleagues both within their home schools and at the district level. In some cases, only TLLP teachers are aware of TeachOntario and these educators want to ensure that they are spreading the word about the opportunity available through both the TLLP and TeachOntario. What is most interesting is how these teachers are stepping up as learning leaders in their own schools and sharing their learning through multiple modalities (e.g., online and face-to-face). Teachers' insights about continuing their learning beyond the TLLP using TeachOntario are provided in the following quotations:

...usually every couple of days, there's something that pops up that is interesting to me that somebody else is exploring in Ontario and I want to learn what they are doing.

I find that I'm better each day, I mean there's good days and bad days, but I feel like I'm a better teacher because I'm using the platform and I'm getting ideas. I mean could go down the hall, but sometimes the teacher down the hall does the exact same thing as they always have done and I want to try something different.

I met [this teacher] on-line, never met him in person. We both teach math and he loves math and is an exemplary math teacher and we just share what we do every day and now people in the province are doing what we are doing in our classes, because we have shared on TeachOntario and he's also a fellow TLLPer and he is now moving forward on a PKE... never met him, and he's "we should get our classes together.

We're doing the same thing with [our school district] and it's the same. They're called "inspire sessions." And teachers sign up and so my next one is early in May, and the teachers sign up and I have done one on the TeachOntario site. So it's getting the word out and the teachers who want to come, come.

And it came from a gentleman I have never met...He did that in his classroom. I've done that in my classroom. He's a gentleman from Thunder Bay, never met him, met him online, brilliant educator and I borrow or steal so many ideas from him every day, and I really believe that's where it came from... [name of teacher] we don't get to teach together, but there are days that [she] is in my classroom, because I take her ideas, I show her videos, I use her art ideas, her e-learning ideas. Same with [name of a different teacher]. There's ideas that he's taught me about Google that I would never have imagined using in my classroom. So those are just some of the things. Part of my TLLP was TeachOntario.

### 2.8.6 TeachOntario: Initial Conclusions and Next Steps

TLLP teachers have been actively engaging on the TeachOntario platform since its early days as a prototype, providing feedback and recommendations that have contributed to its current form today. There are a plethora of materials available to educators within and beyond Ontario on the platform with the vast majority of them being created by teachers themselves. Staying true to its original premise of being “by teachers, for teachers,” TeachOntario’s leadership has remained committed to their vision of a digital community that is responsive to the needs of its users by constantly improving and adding features to the platform to facilitate productive use.

While the TLLP served as a gateway for many teachers to learn about and begin using TeachOntario, it is certainly not the only context within which TLLP teachers (both current and past) are engaging this digital professional learning community; their interactions within the community extend beyond their TLLP work or experience, encompassing their professional practice as a whole. Nevertheless, TeachOntario has provided a safe and easily accessible online space where many TLLP educators are documenting their learning throughout the duration of their projects, making their learning visible to a potential audience of thousands of other Ontario educators, and even international audiences when the TLLP groups or individual members choose to share materials through the site’s EXPLORE section. Veteran TLLP teachers are taking on leadership roles by stepping up to offer online professional development through the Professional Learning Series and several TLLP stories have been shared globally through the TeachOntario Talks series. Although the ways in which TLLP teachers are engaging TeachOntario often resembles the use of the Mentoring Moments NING (e.g., blogging about their experiences), the teachers we interviewed all spoke to the power of a potentially global audience in encouraging them to take risks and to share their learning online as a key difference between these two digital spaces.

Early analyses suggest that educators (TLLP and otherwise) are visiting the *tllpcreate* groups online, yet interactions tend to be infrequent with very little online dialogue that engages participants in the co-construction of meaning. Rather, the content examined to date suggests that many interactions serve the function of building solidarity within the group. This serves an important function within the community, creating the conditions necessary for

more complex knowledge exchange over time. This is an important area of future research—continuing to monitor the activity of groups such as @HCTLLP to see if the nature of their interactions change over time. Little is known about the lifecycle of online learning networks such as TeachOntario, and as such, these data provide initial data for this initiative, which can be used for comparison as time continues and we learn more about how TLLP educators use TeachOntario to support their own learning and sharing their learning with others. Our preliminary research suggests that TeachOntario is a highly promising and valuable platform for expanding teachers' professional learning beyond that of their individual schools and school districts. It should be noted that our current research is up to the point that TeachOntario was officially launched on March 31<sup>st</sup>, 2016; the level of activity already in place is noteworthy and we would expect to further expand and hopefully deepen. In 2016-17, we will continue to examine the patterns of interaction among and between TLLP groups on the platform in an effort to learn how they are facilitating and/or constraining knowledge sharing within the broader TeachOntario.

## 2.9 Provincial Focus Groups with Ministry and OTF

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Two focus group interviews were conducted with provincial leaders engaged with the TLLP; specifically, a focus group was held with OTF representatives and a separate focus group with government officials in the Teaching Policy Standards Branch of the Ministry. Both focus groups were conducted during June 2015 and asked participants to reflect on updates and changes to the TLLP and related activities during 2015-16.

### 2.9.1 Updates on TLLP during 2015-16

A recurring theme across the interviews was that 2015-16 was a year in which the TLLP became bigger – both in scope and in influence. An OTF leader explained that 2015-16 was a “milestone year” for the TLLP:

*I really felt that this was a milestone year in terms for the TLLP in terms of broad recognition of the project. So in the early years, we realized that not everybody had heard about the TLLP and we were ... there are still probably teachers out there who have not heard of it ... but we really worked very hard to publicize it and to get more people to know about it. And what happened this year is that we had very, very broad recognition*



from all kinds of sectors... The NORCAN partnership evolved out of the recognition that the Alberta Teachers' Association has for the gains of the TLLP. Their desire to partner with us is wholly based on what they saw us doing in the TLLP. It was a very big milestone year for us. It is also the year that we had the 10<sup>th</sup> cohort trained and I have to say, personally, the feeling at the training session when we brought out the cake and everybody came and posed at the cake, it was a real feeling of accomplishment. It's very rare to have projects that are Ministry funded last and endure this long and we have to stop and say that's pretty awesome that we did that. I noted some little things that I think are signs or evidence of the greatness of what we achieved at this point. I thought that Michelle Cordy being invited to be a keynote speaker at ISTE is really worth mentioning. I think the fact that the TLLP model was applied to the PPM on professional collaboration was so impactful on that PPM. People talked on and on about TLLP and the TLLP model and so the model has also been used in other initiatives that School Boards are doing, because I know that TDSB has a TLLP type thing... Here at OTF, we have something called the TLC which is based on the TLLP model. So, it has really become a model for many things... it was very clear in the push for professional collaboration, and frankly, I would say, the entire push of role in Ontario towards professional collaboration is because of the success of the TLLP... We also have fantastic TLLP publications this year. In addition to the many articles, and I've seen some beautiful articles and blogs written by teachers, but we have the chapter that was done in *Flip the System*, and the new book that is coming out and a lot of stuff that has been written. I would also say, not to take any credit because I didn't have anything to do with it, but the new E-book that was just published is also very grounded in the hands of TLLP teachers. We have TLLP teachers offering large numbers of the Federation courses that are offered in Summer Institutes or Conferences, they're our presenters, our Webinars, they're our presenters. I mean this is a huge, huge not just recognition, but the reach of the project has really felt enormous this year. And then, of course, there is the coming of age of Teach Ontario, the formal release of Teach

*Ontario which is so much rooted in TLLP teachers. Those are all the positives.*

As indicated in the above quotation, a considerable amount of growth in influence and impact happened during 2015-16. These points were also echoed by comments in the Ministry focus group interview.

There have been some specific changes within the TLLP itself. Previously, all school boards could put forward a maximum of two TLLP project proposals. In light of concerns about whether this was appropriate, the rules have been changed to allow larger school boards (with over 3,000 teachers) to submit up to three TLLP proposals. At the same time, to ensure that a larger spread of teachers are involved, an individual teacher can now only be a TLLP project leader for a maximum of two projects (although they can be on additional projects as a team member not the project leader). In light of the need to fund technology, but concerns not to prioritize technology purchases over pedagogical concerns, TLLP project budgets now must balance the level of funding spent on technology, as a Ministry official commented:

*And it's also our second year of limiting the tech budget. So we encouraged a balance last year so there was an equal amount of funding for technology, as well as, learning and sharing activities. And that was the second year that we've done that for the launch, and that also is going well, we've seen that balance be reflected.*

These three practical revisions to the TLLP proposal process were important and took account of recommendations in our previous research reports.

There were also changes to the TLLP Sharing the Learning Summit. 2015-16 was an unusual year as labour negotiations, work to rule and strike action, and the Ministry's decision to "pause" activities impacted the timing of the Summit. As discussed in section 2.4.2, in practice the change in timing did not have a negative effect on participants. This point was echoed by OTF and Ministry interviewees. The fact that both OTF and its affiliates and the Ministry maintained a working partnership and delivered a highly successful Summit in a challenging year was an important achievement and testimony to the commitment of both partners to supporting the success of TLLP teachers. There were also changes to the Summit

program to increase amount the time for TLLP projects to share their learning during the Summit.

Similarly, there has been attention to further improving the Leadership Skills for Classroom Teachers training. An important development has been increasing attention to engaging former TLLP teacher leaders as speakers and presenters. An OTF interviewee provided an example of how TLLP teacher leaders were becoming leaders of the training as well:

*...in 2015 for the first time, we involved one of the experienced TLLP participants, Rolland Chidiac in actually presenting a Plenary session at the training. In 2016, at the very last minute, Rolland, because of a family emergency, could not participate... So, I e-mailed Rolland and asked, basically, for advice on what I should do. Rolland, who is a math teacher in the Waterloo Catholic Board immediately e-mailed back and suggested a teacher at the Peel Public Board, Jonathan So. He said ask Jonathan, he'll do a great job. I e-mail Jonathan. Jonathan says "no worries," and Jonathan agreed to do the presentation with me. This is two days before we're to present. Absolute confidence in both of them that there's no problem with this happening. They have made the connections across Board, across Panels, across the Catholic and Public, it was just phenomenal. So Jonathan, a day before the presentation e-mailed back and said "oops, I have to do a workshop at the Math Conference. He's presenting at the OAME, so Jonathan who had to present at 9:00 a.m. that morning at the OAME, just when we were supposed to be presenting our Plenary, sat down the night before and videotaped. He has learned these skills from just being a classroom math teacher. He videotaped five clips for me to use in the Plenary to answer the key questions that we were to bring up in the Plenary. Complete confidence, the leadership ability to do that, to feel confident enough that he could say ... and he said exactly the right things. It was all videotaped. It came across beautifully... It was just excellent. And so here are two regular classroom teachers that have developed this expertise, confidence, the leadership skills, it was just ... you couldn't have captured the success of the TLLP better than that.*

Part of the “milestone year” for the TLLP has also been the increase in awareness, sharing and impact of the TLLP. Both Ministry and OTF interviewees spoke of the increased showcasing and sharing of TLLP projects. For example, one Ministry interview commented:

*We really feel that there's these treasures in our schools and in our classrooms and sometimes because of knowing them through the TLLP, we were able to help share them with a broader group and that's really, really great. Our whole team, when we go to the Summit, we don't just gather postcards to stack on our desks. We really are, almost scouting, for who are the people that we would really like to bring attention to for our colleagues inside the Ministry, but also for other places and other venues, as well.*

Ministry colleagues spoke of providing opportunities for TLLP teacher leaders to speak and showcase their work at regional and provincial events. Similarly, OTF colleagues spoke of examples such as TLLP teacher leaders presenting a panel at the OTF's Board of Governors annual meeting and TLLP teacher leaders now leading and facilitating professional development provided by OTF and/or affiliates. “An enormous increase in social media” use by TLLP teacher leaders was also noted as raising the awareness and spread of TLLP ideas, knowledge, connections and interactions. Further, the growing profile of the TLLP research reports and publications were also cited as adding to the increased profile of the TLLP within Ontario and internationally.

Connected to, and influenced by, the TLLP, new projects have emerged and evolved. The PKE continues develop. One Ministry interviewee suggested that:

*... the PKE is more advantageous to the Board becoming involved and instrumental in supporting the learning from the TLLP. So I think that that's becoming more and more apparent, and I think that is a huge benefit of having the PKE, because it's sustainability for the TLLP in a different way, not with the focus on the teacher team, but including the Board team. They need to be more involved in it.*

However, OTF interviewees expressed concern that they and affiliates were not directly involved in the PKE process. An OTF interviewee suggested:

*I think that the project would be strengthened if we had a little more engagement in the PKEs. We would be celebrating them more.*

Finding ways to engage OTF and its affiliates, as well as school board, school leaders, and teachers in the expanding PKE is important and requires further attention.

Another approach to expanding the range of people involved in TLLP-related activities is the Norway-Canada (NORCAN) partnership. As a Ministry interviewee explained:

*...NORCAN, it's a Norway and Canada partnership and the CAN is Ontario and Alberta. Two Ontario schools, one in Windsor and one in Oshawa, and it's really about finding equity in mathematics and how these jurisdictions can learn from each other and build communities of practice and networks. What we're seeing that's new from the last time we talked to you is actually the schools are now doing work in between the NORCAN visits with each other. So, we have Ontario schools that are going to visit some Norway schools over the summer. We have Ontario schools I think that are going to visit schools in Alberta. Yeah, and so that would be one teacher from Oshawa who presented at the Ontario visit was I think on the Student Work Study Initiative that they're doing. So the Alberta school heard about that and just fell in love with that idea, and so they have actually reached out to her and now they're talking. Yeah, it's nice that we are meeting in different countries or provinces, but now real work is happening in between those sessions. We also have a NORCAN Ning... an online platform where schools could talk to each other and share what they are doing.*

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).*

However, while powerful, there was also recognition that a project involving national and international travel and hosted events may not be sustainable:

*I think what will emerge from the NORCAN project is that the design is not a cost effective design and that it will have to change in the way that it operates in order for it to be sustainable... It's been a wonderful experience full of learnings, but one of the learnings is that it's costly. (OTF interviewee).*

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).*

A Ministry interviewee proposed that the future goal should be that NORCAN “becomes an embedded collaboration as opposed to an event or two a year, and I think we are heading in that direction.”

Another major development for expanding the sharing and reach of TLLP projects was the development and official launch of TeachOntario during 2015-16. Ministry and OTF interviewees were highly supportive and enthusiastic about TeachOntario. As discussed in our TeachOntario case study (section 2.8), TLLP teachers and their projects have been integral to the design and development of TeachOntario. An OTF interviewee commented:

*... there are a couple of things that I would say about Teach Ontario. It was certainly a match made in heaven. They were looking for a way to showcase teachers work and the TLLP is a project that really allows the teachers to think about their work and to share their work, so I think that they hired Karen Gross, she was the perfect person for it, and she has really been faithful to that vision of it being for teachers, by teachers. So, those are the things that I think are really, really excellent about Teach Ontario and TLLPs kind of ... the TLLP teachers helped create Teach Ontario and can share, really, in the rays of light of having done so. They named it. They did everything around it. They've been showcased. They've been profiled on it.*

At the May 2016 Leadership Skills for Classroom Teachers, following the official launch of TeachOntario in March 2016, TeachOntario was "introduced as the platform for the TLLP projects to share their learning" (Ministry interviewee). For this Ministry interviewee, TeachOntario offers a distinctive, additional platform for TLLP participants to share their learning beyond the existing Mentoring Moments NING:

*...the Mentoring Moments has been great for knowledge exchange between TLLP teams. That's really how it has been used, and last year we basically gave people a choice. We said here's this platform that already exists. Here's this new place, you decide what works best for you. I think the difference with Teach Ontario is now that it is growing, is it becomes a place not just for teams to share with each other, but for teams to share more broadly, and so I think when we look at the goals of Teach Ontario, they are the exact same three goals as the TLLP, and so that knowledge exchange, especially that third goal, we think is more evident by using Teach Ontario. It had its official launch by the Minister on March 31<sup>st</sup>, and*

*since that launch it has experienced quite a rapid growth. It has over 5000 educators on the platform now. The NING has about a thousand. So already we see the scope increasing... So we feel that it's [TeachOntario] not just a showcase for TLLP, it's a way to reach a broader audience.*

While highly supportive of TeachOntario, an OTF interviewee expressed some concern if, in the future, there is not a dedicated online space where TLLP projects are expected to share their artifacts and where there is an easily searchable database of all TLLP projects curated on one site:

*... but the flip side of it is when I want to look for all the TLLP projects, it's not as easy to do it anymore. All the Ministry really has now is an excel spreadsheet. They used to have a searchable database, and I still really, really believe in the concept of having stand alone, even if it's sitting on Teach Ontario, but having a searchable database of just the TLLP projects, where I can find the e-mail address of the person who ... like I want to look for all the ones that were about math, or all the ones that were about the differentiated instruction, or the ones in 2015 that were about math and differentiated instruction. I want to be able to look at their websites and blogs and all those links and I want to be able to contact them. And so you can do that within the excel document. If you click on each of the fields in the excel document, loads of text will come up, but that's not the same as having ... [gives example of] toolkit where you could go in and you could find ... there would be a picture of the teacher, whatever, and a description about them and you'd have something about the project and something about some links, something like that, a page by page. So basically what would happen is you would have a searchable database and you would say "I want the ones on math," and you could click on all the ones that were about math and they would take you to a page like this. And that's what I think you need for the TLLP, because you do need to be able to say, certainly in terms of using the leadership and the knowledge base that's there. When we're running a conference on math, we want to be able to go and find those teachers. Not just the ones that happen to be the favourites. We want to*



*see who is doing what and how can we find them. So I think there's a bit of a problem in that it's not so easy to identify in any place now, just the TLLP project.*

There are considerable benefits in the scope and scale of TeachOntario for supporting TLLP teachers' knowledge exchange with a wider group of educators. However, attention to the additional need for TLLP dedicated online space, such as through the NING or within a future TeachOntario, is required.

In addition to specific initiatives or projects, Ministry and OTF interviewees proposed that the TLLP way of doing things was increasingly influencing policy and practices more widely. Most notably, the Policy and Program Memorandum (PPM) 159 on Collaborative Professionalism was cited as an example of where the TLLP approach to professionally-led improvement was inspiring and influencing wider changes in policy and practice:

*That collaborative professionalism ... I think you can't mandate collaborative professionalism. I think you can inspire it. And I think TLLP serves as an example, an inspiring example, of when you step outside of your classroom and begin sharing with your colleagues, how that can kind of create a virtuous cycle of learning (Ministry interviewee).*

A Ministry interviewee suggested that TLLP supports "the idea of de-privatization of practice as a habit of mind" and supports "authentic learning" that can be applied across other areas of teaching policy and practice:

*... just the idea of what is authentic learning? I think the TLLP causes us to really think about that and how that can be applied in other ways. So our Branch is working, very early stages, on how can we make the Annual Learning Plan not an Annual Filing Plan? How can we make it a collaborative living document that fosters collaborative professionalism? So some of the things that we know about authentic learning from the TLLP, like the four R's, Relational, responsive, recursive, real world. How can we take those four R's and take them and apply them to our work in other areas? I think that continues to be a lesson for us or an opportunity for us. So I wouldn't say that's new learning, but I think we are really now*

thinking, what would it look like, or what might it look like? And we have some other work that we've been engaged in around mentorship and around teacher induction where I think we try to frame that work in that same sort of learners' centred view. And then I guess the only other thing is the idea that the power of the professional learning networks that the teachers themselves are generating. Great that we have TeachOntario or the Ning or we have our #TLLP. But the learners' ability to generate their own learning networks and for us to learn from that, I think, has been really powerful. How important relational trust is in learning is something ... my work is in mentorship, but it is really echoed in this. And the "street cred" that colleague to colleagues have with each other when they are sharing... So we see that desire to share practice and to learn out loud if you will manifest in ways, not just through the TLLP, but hosting a teacher candidate or mentoring a new teacher or being part of a team who is working on something for the Board and in some cases, now when you visit the Board office, the new person says "oh yeah, I was in a TLLP for years ago. Now I'm the consultant for literacy for my Board" or "now I'm supporting the new Teacher Induction Program." So not always leading to title Leadership, but that small "I" leadership whether is from within the classroom or whether it's more at a Board level in a titled way. I think that is something that we see growing.

Ministry and OTF interviewees identified a range of Ministry, affiliate and school board programs and projects that had developed a "TLLP" approach, for example:

*I think at the Board level, there's more awareness. So we've seen some really great examples... Jane Costello from Lambton-Kent basically said, "we do TLLP. We call it an innovation fund and we run it in each of our families of schools." So we see at a Board level, people adapting the principles and the ideas. Mary Cunningham in Kenora Catholic, she does something that is entirely based on the TLLP. It's called an "idea lab." She has teams of teachers and students pitch ideas at the Board office and then she funds them. That's what she does instead of an Annual Learning Plan on paper in a filing cabinet. So she's really taken that. And she'll*

*say, it's TLLP. Even in a big place like Toronto, TDSB was happy that we increased the allocation to three. But they asked us, "can we fund three on our own and have them come to the training?" So they actually did with their own funding, however they received that funding internally, there's three Ministry funded TLLP projects and there's three Board funded and you couldn't tell the difference. They are equally robust and equally supported... they've set up a mentoring system, where previous TLLP projects actually help the new projects write their proposals (Ministry interviewee).*

In summary, 2015-16 has been a "milestone year" for TLLP. The tenth cohort of TLLP was launched in May 2016. Across the Ministry and OTF interviewees, the expansion of the scope, reach, spread and influence of TLLP was noted, both within the TLLP directly and in a range of related initiatives, such as PKE, NORCAN and TeachOntario, and more widely in supporting a move to collaborative professionalism involving TLLP-like ways of working provincially and in school boards and schools.

### 2.9.2 Key Benefits, Challenges and Future Steps

Consistent with our previous research (Campbell, Lieberman & Yashkina, 2013; Campbell et al., 2014, 2015), Ministry and OTF interviewees continued to identify considerable benefits of the TLLP for teachers' learning and leadership, for other adults involved and affected, and for students' learning. An OTF interviewee summarized:

*In terms of your next questions (on impact... I put double checkmarks next to each one, and that's my shorthand for saying "we could not be doing better on these things." Teachers' Professional Learning, fantastic; Teachers' Knowledge, Skills and Practices, unbelievable; Teachers' Leadership Skills and Experiences, phenomenal; Other Adults Affected by the TLLP projects, oh that was one of my best moments this year was when one of the NORCAN Principals said that his whole career as a Principal was changed completely by virtue of the fact that he had a TLLP project in his school. He said he was so jaded and nothing exciting was happening. And if you go into the TLLP schools, you can really feel the*

*impact of their projects on the other adults in their schools and not just on the other teachers. It's like very, very wide reaching.*

An impressive range of examples of teachers' growing into leadership, of changes in professional knowledge and practices, of sharing and spreading knowledge, and of improvements in students' outcomes were provided during the focus groups. The TLLP is considered to have substantial impact:

*I think I am going to say that the fact that they're in the project for a full 18 months, which is over three school years, really encourages ongoing involvement in the TLLP learning beyond the period of time that the funding is there. I think that the fact that we designed it to ... you're trained in one school year. You run the project in the next school year. You have your Summit in the following school year, really involves people in reflecting for a much longer time on what it is they're doing and also, it enables them to feel like this is something that they're vested in, that they then continue on. And the longer term impacts are really that these are people who are being recognized as leaders in their areas and they are being called on. And the province frankly is learning from what they know. When you want to run something on technology or you want to run something on math or you want to run something on whatever the subject area is, you're much more likely to have a rich, rich program if you rely on the expertise of these teacher leaders. I think that's a long term impact, as well (OTF interviewee).*

Both Ministry and OTF interviewees cited the uniqueness of the design and impact of the TLLP as noteworthy and something to continue to be supported:

*... 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 (Ministry interviewee).*

*What I find is unique about the TLLP, the sharing of successful practice... is the fact that it is not coming from the top down, it's coming from the bottom up, and therefore, it's a better agent of change than almost every other PD initiative we ever had, because every PD initiative comes top down... but this is completely backwards. So it's Flip the System, it's bottom up, it's Jonathan So, for example. His project involved educating his staff. He taught 40 teachers how to be better at teaching math. And because he did it, rather than the Principal doing it or the math coordinator, or whatever, it is more ... there's more buy in. It is a better agent of change in the system. (OTF interviewee).*

*So we are now gradually shifting from the traditional PD model of "we'll tell you what to do," to "your peers will tell you what they did." And so that has been a very positive shift and I believe it will continue. (OTF interviewee).*

However, another OTF interviewee was also careful to point out that the TLLP does not leave teachers to act autonomously and in isolation; rather scaffolding and supports are built into the program:

*But, if I could just say, and this takes back to our initial conversation about what is required of the participants. We scaffold them. It's not just like "here's the money, go off and do whatever you want." We said to them, "we know that there are some things you've never done before. You've never managed a project before you've never presented to big audiences before. You've never had to track your results or do anything that looked like research before, because you don't have it in your teacher training (OTF interviewee).*

And the knowledge exchange in TLLP of, by, and for teachers can also involve reaching out to external sources:

*Well, what I've also liked in the TLLP projects has been that a lot of them are ... they don't just seek the information from each other. They actually do seek the information from experts in the field, from conferences, from*

*books. It's not just teachers learning with teachers. It's teachers being informed together and learning from each other's practice, but also looking to ... I love the projects which say the first thing that we want to is read as much as we can, or learn as much as we can about this approach. Then once we've learned about it, now we're going to start to implement it and we're going to then feed off each other's experience. (OTF interviewee).*

In addition to benefits for teachers' learning and leadership, a noticeable benefit of the TLLP is the infectious energy that it appears to support and spread among those involved – whether teacher leaders or provincial leaders (and even researchers), as illustrated by this exchange during the OTF focus group:

*OTF interviewee 1:*

*Teacher leadership is a major agent of school change. What I think is interesting too, because you asked what is unique about the TLLP approach. It fascinates me every time I talk to somebody about the TLLP, how excited I get about it. I'm shocked by my own excitement. Honestly.*

*OTF interviewee 2:*

*Me too. I've been retired for 10 years.*

*[laughter]*

*OTF interviewee 1:*

*Ten years. We've been doing this for 10 years, Carol. You would think, as we sit down and talk about it, that it's just like we're brand new at it, because we're still "and this happened, and that happened." "I think about this story, that story." I don't know anything else that I've done ....*

*OTF interviewee 2:*

*It energizes every single person involved, anyone who is connected to it.*

*OTF interviewee 1:*

*Any person who has any contact with it. That's very fascinating, that's very unique. How did we do that? [laughs]*

*OTF interviewee 2:*

*I don't know.*

*OTF interviewee 1:*

*We let them do it, I guess. We let the teachers do it.*

*OTF interviewee 2:*

*We finally empowered the classroom teacher.*

Ministry interviewees were also enthusiastic about the TLLP:

*I feel that there's a lot of momentum with the TLLP and I think, I mean I can't see anything really changing in terms of that energy and enthusiasm around the TLLP. (Ministry interviewee).*

Both the Ministry and OTF expressed their commitment to maintaining the TLLP and the partnership between these two organizations. At the same time, looking forward, there is interest in how to further develop the TLLP. As a Ministry interviewee commented:

*... we would like to continue to improve and refine the TLLP. The elements of the TLLP through your research, through what we've heard from teachers, we want to stay very true to and I think ... I would say there are two unchangeables for us. One is that it be teacher led and teacher directed so that voice and choice is right at the core... and the partnership with Boards and especially with OTF. But then other elements of it we would really like to continue to shape to respond to teacher learning as teacher learning changes... with the collaborative professionalism. There will be things happening in the context of schools and classrooms that we want to ... we want to keep TLLP really current, and if anything, expand it, not diminish it.*

The opportunity moving forward is the active commitment of both the Ministry and OTF to the TLLP and to continuing to work in partnership. The potential challenge is working through the details of what future developments may involve. The Ministry and OTF are to be highly commended for their responsiveness in addressing previously identified challenges; for example expanding the number of TLLP projects in larger boards, reducing the number of

times someone can be a TLLP project leader, balancing technology and learning funding, and adjusting the details of the Summit and Leadership Skills for Classroom Teachers in light of evaluation feedback.

However, there are some recurring challenges that were mentioned again in the 2015-16 interviews. Specifically, concerns about the Board approval process and whether these disincentives or prohibits more innovative projects. One suggestion was for a small proportion of TLLP projects to be approved separately by the provincial TLLC. Concerns about how best to engage all school boards, particularly French-language boards were expressed. Attention is being given to how to engage principals, but this is an area for further consideration. While the PKE may increase the engagement of principals and boards, OTF are keen to know how they can also contribute and engage in this aspect of the extended TLLP. As mentioned previously, 2015-16 was a complex year and the fact that TLLP partnerships among the Ministry, OTF and its affiliates persisted is important and impressive. During the year, some specific decisions were made or suggested that were not fully in partnership and where there may be differences in perspective, for example on TLLP proposals, on Summit and training events, and on the nature of an online TLLP site (whether NING and or TeachOntario). The details of these decisions require continued discussion to further the vital partnership and to continue the important and impactful TLLP as it enters its 10<sup>th</sup> cohort.

### 3. Conclusions

2015-16 was a “milestone year” for the TLLP; in many respects, the TLLP became larger during 2015-16 in terms of scale, awareness, influence, and impact.

In our analyses of cohort information from TLLP proposal applications and Final Reports, we noticed that in recent years, the number of funded projects increased significantly. There have been changes to the size/structure of a TLLP project team: the number of single-person projects has reduced (from being 17% of all projects in Cohorts 1-4 and 13% in Cohorts 5-6 to 5% in Cohorts 7-8), while the number of larger team projects (5-10 people) has significantly increased (from 10% in Cohorts 1-6 to 30% in Cohorts 7-8). Small team (2-4 people) projects, however, are still the most popular, constituting 61% of all projects. The overall expenditure on TLLP projects has also increased greatly, with Cohort 8 reporting the highest level of



expenditure compared to previous cohorts. The average project budget has increased significantly as well (from \$14,412 in Cohorts 1-6 to \$21,224 in Cohorts 7-8). It is worth considering whether the increasing scale of TLLP teams and budgets is an intentional strategy or emergent, and whether these increases are beneficial overall. We would support the need for flexibility in team size (including single person teams) and budgets; however, it may be worth considering the average anticipated budget and number of projects to be funded to support the continued spread of TLLP projects across the province.

Overall, differentiated instruction and technology have been the most prevalent areas of foci. Nevertheless, there have been some shifts over the cohorts. The number of projects on technology has increased greatly (by Cohorts 7 and 8, the focus on technology was three times the level in Cohorts 1 and 2). The numbers of Professional Learning Community (PLC) and Math Literacy projects have grown as well. Two new themes – Safe Schools and Equity – have been added to the application forms recently. During the analysis of the sample of Final Reports, two new themes were identified: New Pedagogies and Community Engagement. We suggest adding these themes to the list of themes in the Final Report form.

As well as the increasing scale of TLLP projects, Ministry and OTF colleagues discussed the increasing influence of TLLP through linked initiatives, such as the Norway-Canada (NORCAN) partnership and TeachOntario, and importantly by more widely influencing the developing approach to collaborative professionalism and professional learning in Ontario.

With regard to impact, we highlight some key findings linked to our research questions below.

### 3.1 What are the Impacts of TLLP Projects for Teachers' Professional Learning, Knowledge, Skills and Practices?

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Consistent with our previous research (Campbell, Lieberman & Yashkina, 2013; Campbell et al., 2014), the top three professional learning goals for the TLLP projects in Cohorts 7 and 8 were to develop and improve understanding and knowledge (66% of projects), develop strategies or an approach (66%), and develop or improve skills or practices (59%). These goals were mostly focused on improving teaching and learning. By far, the most common

professional learning activity was teacher collaborative learning. In 95% of projects in Cohorts 7 and 8, educators engaged in some kind of collaborative learning to acquire new knowledge or skills, or to develop new strategies or resources (a higher proportion than the 85% of projects previously reported for Cohorts 5 and 6).

The outcomes of the program reported by TLLP participants for their professional learning were overwhelmingly positive. In 89% of the projects in Cohorts 7 and 8, TLLP project participants acquired new or improved their knowledge/understanding regarding some specific area of subject or curriculum or a particular approach or strategy, such as use of math games, or regarding teaching and learning in general. The same percentage (89%) of projects reported improvement in participants' instructional and assessment practices.

### 3.2 What are the Impacts of TLLP Projects for Teachers' Leadership Skills and Experiences?

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We continue to find evidence of the substantial benefits and impact of TLLP for developing teachers' leadership and experiences. Starting with Cohort 7, the TLLP Final Report form includes a separate section on Teacher Leadership. The most common areas of leadership growth (reported by more than three quarters of the projects) were related to managing a project, organizing and facilitating adult learning and knowledge sharing, collaborating and sharing leadership.

In an attempt to assess the growth of TLLP teachers' leadership over the 18 months of their project, we asked TLLP project leaders to complete a pre- and post-TLLP project mini-survey. The largest growth in teachers' reported leadership confidence level happened in the area of Implementing practices from the TLLP project (the only area with a large effect size,  $d=0.74$ ). Positive changes of medium degree were reported in the areas of sharing knowledge and practices with others, managing a TLLP project, leading professional learning, and being a teacher leader. Small but still significant changes were observed in the level of confidence in leading a TLLP team. We also invited TLLP teachers to write vignettes about their TLLP experiences and leadership growth. Thirty-nine vignettes were provided to the research team. In all the vignettes, teachers were very articulate about what they were learning and the processes of learning leadership. The main themes were: learning to collaborate, building relationships with their colleagues, sharing the leadership with their

team, learning to use technology as a teacher and the leadership needed to use it, implementing their professional development project over the 18 months that they had and, in the process, going public with their teaching as a model with their colleagues while overcoming challenges encountered (primarily time).

### 3.3 What are the Impacts of TLLP projects for Other Adults Affected by the TLLP projects?

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According to our analysis of a sample of Cohort 7 and 8 Final Reports, the main benefit of the TLLP for other adults is improved knowledge and understanding (reported by 68% of projects). Fifty-two percent of the Final Reports 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 submitting a TLLP proposal of their own. Forty-three percent of the projects reported those with whom they shared their learning already started implementing their strategies, tools, and/or resources.

When comparing to Cohorts 5 and 6, fewer projects reported undertaking formal approaches to monitoring learning of others, while more projects seemed to use less formal measures. The TLLP leadership team should continue emphasizing the importance of these measures via training sessions and reporting procedures.

### 3.4 What are the Impacts of TLLP Projects for Students' Engagement and Learning?

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Despite the absence of the specific section on student learning in the Final Report form, 82% of projects in our sample of Cohorts 7 and 8 discussed the impact of the project on their students in at least one section of the report. Among those that did, improved learning skills and experiences, and improved engagement, motivation, and attitude were most common. TLLP teacher leaders should continue receiving advice and support for developing appropriate methods for monitoring student learning and development, especially during the initial Leadership Skills for Classroom Teachers training session.

### 3.5 How is Learning Being Shared Beyond the TLLP Project Team?

Our analysis indicates that the vast majority of TLLP projects on Cohorts 7 and 8 shared learning and spread practice within their own schools (82%) and with other schools/educators in their school board (91%). There was a slight increase in the number of projects sharing their learning across schools, compared to previous years. The most common method of sharing was a workshop (utilized by 84% of projects on Cohorts 7 and 8). The number of projects sharing their learning and resources online increased recently, with 73% of projects on Cohorts 7 and 8 reporting using one or more means of online sharing compared with 55% in Cohorts 5 and 6.

TLLP participants appreciate opportunities within the overall TLLP structure to support sharing with other TLLP teachers and beyond. The Sharing the Learning Summit is highly valued. In fact, participants in the 2015-16 Summit reported the highest ever proportion of respondents to the evaluation forms being “highly satisfied” (82% of respondents in 2015-16 compared to 74% in 2014 and 73% in 2013). Overall, 98% of respondents reported being “highly satisfied” or “satisfied” with the Summit. No respondent reported being “not satisfied”. These are excellent results and clearly indicate the high quality of the Summit and the positive experiences of participants involved.

The Mentoring Moments NING continues to be a source for TLLP teacher leaders to engage online. In 2015-16, there were increases in the number of users to the site. At the end of this reporting period, the Mentoring Moments NING had 1,362 members - a 32% increase compared to the previous year. However, the number of page views per visit, page views per month and the length of time spent on the site during each visit decreased in 2015-16. TLLP groups continue to play a significant role in the sharing of TLLP learning as the number of groups increased by 32% in comparison to the previous year. That said, group membership and levels of activity varied greatly across the site. Since the last reporting year, there has been a steady decline in discussion forum and blog post activity. It appears as though many groups are using external sites for collaboration and knowledge sharing. The development of TeachOntario plus TLLP teacher leaders creating or participating in other online forums may

have affected the levels of activity on the NING. It is worth considering in the longer term what the specific and unique role of the NING will be for the TLLP; it could continue to provide a dedicated space for TLLP-specific sharing of artifacts and resources and a searchable site for information on all TLLP projects.

TeachOntario is an online platform, developed by TVO, to support sharing, collaboration, and knowledge exchange amongst educators across Ontario. From its very beginning, TeachOntario has drawn on TLLP teacher leaders to inform its development and content. The most visible platform for sharing the TLLP learning within EXPLORE is TeachOntario Talks, a series of publicly available, short articles that shine the spotlight on “exemplary teaching and learning practices for the broader benefit of Ontario's students” (TVO, 2016). Since the beginning of the series, TLLP projects have been the subject of thirteen TeachOntario Talks. By the end of March 2016, the number of views per Talk ranged from 510 views to over 3,000. TLLP educators are also visible within the community through posting blogs and leading webinars as part of the Professional Learning Series for which archived videos are made public through the Professional Learning Videos link in EXPLORE. There are more than half a dozen TLLP educators contributing blogs to the Teacher Blogs page and about a quarter of the Professional Learning Series videos are hosted by former or current TLLP project leaders. There is a dedicated space in the CREATE section of TeachOntario where TLLP groups can create a digital home for their projects.

Over the time period of its inception through to the official launch of TeachOntario on March 31, 2016, there were twenty-four TLLP projects active within the community. All TLLP projects are tagged with *tllpcreate*, which allows users to search for this tag and locate these TLLP learning communities. Our social network analyses of the *tllpcreate* groups indicated that 145 people interacted at least once within one or more of the *tllpcreate* groups. In total, there were 264 ties recorded across the 24 TLLP groups. TeachOntario is facilitating access to new ideas and information; however, the development of stronger ties through increased engagement and participation by *tllpcreate* members is important to consider for achieving networks for constructing new knowledge or exchanging complex knowledge.

In our interviews with TLLP teachers, TeachOntario leaders, Ministry officials and OTF leaders, the response to TeachOntario was universally positive and popular. From a focus group with TLLP teachers, our findings highlight three key points: 1) the platform acts as a source of

empowerment and encouragement to share, where the TLLP was often an entry point for its use, but they used the online platform in ways that extended beyond their TLLP projects; 2) teachers' use of TeachOntario provided a means to model professional learning to others; and, 3) TeachOntario provides an opportunity for continuous learning, building upon and extending the learning from within the TLLP.

The scaffolding and infrastructure to support TLLP teacher leaders develop their project management, leadership and knowledge exchange is vital and both the in-person training and Summit and opportunities for online sharing and interaction should be strongly encouraged and continued.

### 3.6 What Longer-Term Impacts of Participating in TLLP Projects Can Be Identified?

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In our analyses of a sample of Cohort 7 and 8 projects; all of the projects in the sample planned to continue learning, working, and/or sharing in the area of their project. In 86% of the projects, innovations and learnings developed during the course of the project would continue to be incorporated into project participants' daily practices. In 55% of the projects, project leaders planned to continue learning about the area of their TLLP interest and/or continue developing strategies and resources for personal use and for sharing in person and online. TLLP teacher leaders of almost half (48%) of the projects in the sample stated they were going to continue collaborating/networking with their colleagues/other experts in the area around the issue/innovation. TLLP teacher leaders of about 30% of the projects did not have specific sharing plans but said that they were open for sharing their learning and/or were seeking sharing opportunities. Supporting TLLP teachers to consider ways to develop a future knowledge mobilization plan is an area worth further development.

One way of supporting longer-term impact is for TLLP projects, with the support of the school board, to apply to become a Provincial Knowledge Exchange (PKE) to support further sharing of professional learning across schools within a board or with other boards. Forty PKE projects have been approved and completed or are under way: 4 projects in 2012-2013, 11 projects in 2013-2014, 18 projects in 2014-2015, and 7 projects in 2015-2016. The most common level of sharing was with schools within the home school board. The most common method of sharing was a workshop; although for even deeper learning and more intense

development, collaborative inquiry and learning were used as a method of sharing. In at least 8 projects, such forms of collaboration as professional learning communities, communities of practice, study groups, and planning committees were formed to analyze an issue/idea at hand, reflect on current practices, brainstorm solutions, develop new strategies and resources, and/or plan together. Across the PKE projects, and in three PKE case studies, 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, made resources (e.g. lesson plans, assessments, materials to use in class, teacher toolkits, eBook, instructional videos, suggested resources) available in print or online. According to the PKE logs and Final Reports, the project sharing activities resulted in more knowledgeable, skillful, motivated and confident educators. Eight projects reported changes in teaching practices as a result of participation in their PKE projects. In these projects, teachers had a chance to try new strategies or use new tools/resources in their classrooms and report back on successes and struggles. The changes in teaching translated into changes in student experiences: improved self-awareness and control, increased motivation and engagement, improved attitude, increased enrollment, improved sense of belonging and community, increase in student voice and choice, improved learning skills (collaboration, communication, sharing, problem-solving), and better relationship with teachers. Similarly, in our PKE case studies, we found evidence of benefits for both professionals' learning and students' learning. In the Documenting Literacy and Learning in Kindergarten (DLLK) PKE, which developed from a TLLP project in St. Francis of Assisi Catholic Elementary school in Renfrew County Catholic District School Board (RCCDSB), reported benefits for teachers' and Early Childhood Educators' professional learning included: 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. Similarly, in the Balanced Math (BM) program, originating in 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 one PKE involved 16 schools. Perhaps the most dramatic improvement in student achievement was demonstrated in the U.P. 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% the school's students were meeting provincial standard in Grade 9 Applied Mathematics compared to 71 % meeting level 3 or 4 standards following program implementation.

To further support monitoring of impact of PKE projects, we suggest making changes to the Final Report form by requesting information on the nature and spread of PKE-related sharing activities that actually happened (not just planned ones) and by requesting more details on the impact of the project on project leaders/facilitators, educators, students, schools/board, and future plans.

Our evidence suggests that TLLP projects seek to sustain and further their learning and that PKE is one mechanism to support for sharing across schools and boards.

### 3.7 Final remarks

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In the words of TLLP participants, the TLLP continues to be “the greatest professional learning opportunity” for educators. It has “a tremendous impact” on its participants as educators, and provides them with “a very unique and educational experience” as leaders. It has also proved to effect students and schools in a positive way. The “buzz” TLLP participants create is “contagious” and spreads the knowledge, practices and the spirit of learning, collaborating and experimenting to support the development of educational knowledge, skills and practice. The partnership between the Ministry and OTF (and affiliates) continues to be vital to the ongoing implementation, spread and development of the TLLP. In 2015-16, the TLLP's impact grew both directly through TLLP projects, through connections to initiatives that engaged TLLP teacher leaders (including the PKE, NorCan, and TeachOntario) and, indirectly, through inspiring, modeling and informing the current emphasis on developing collaborative professionalism among and between all involved in the Ontario education system.



We would like to finish with a quote from a TLLP participant who describes the value of the TLLP for her team:

*Participating in the TLLP provided us with the opportunity to get into the driver's seat of our own learning and professional development. It allowed us to make decisions, order resources that benefitted our learning and attend conferences that were meaningful and provided valuable networking opportunities. Throughout this year, we had opportunities to work closely with our French Immersion Board Consultant, our School Principal, our Superintendents and other important leaders within and outside of our board. In participating in this work, we were forced to be our own advocates, to have difficult conversations about the impact and the sustainability of our work and to promote all the positive results that were happening within our focus classroom. Not only did we grow as teachers, we grew as communicators, as planners, as presenters and most importantly, as learners. We know that all of these traits are characteristics of good leaders so therefore we can say that we did grow as leaders. We have completed this TLLP with confidence in knowing that we were part of a successful project and there are many individuals in and around our board who value the work that we did and who now see us as teachers/colleagues that they can reach out to for further support in helping struggling readers in the FI program.*

We continue to be highly impressed with the findings from the TLLP research and recommend the continued development of this important program which is supporting improvements in Ontario and becoming recognized internationally as a model for professional learning.

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