Learning Connections Research Report 2010:
The Learning Connections Champions

by

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Executive Summary

Study Background and Method

The 2009-2010 research on the Literacy and Numeracy Learning Connections Project (LC) was directed at understanding the perspectives, activities, and plans of the LC Champions in their role as leaders in building participation in LC within their areas of professional responsibility. To help guide their program planning and implementation, LC management wanted to learn what Champions were doing to fulfill their functions during the fall of 2009, and their plans for future activities; what Champions understood the role of a Champion to be and how they thought LC might better support that role; what Champions thought effective teacher professional learning should look like, and what the role of a professional learning community was in that learning process; how well the Champions thought LC was addressing the learning needs of its members, and how it should work to foster a learning community; and the perceived barriers to building the effectiveness of the Champions and the professional capacity of members through LC and how these could be overcome. In addition, the Champions' views were sought on the viability of several approaches to sharing with districts the costs of LC conference attendance and teacher release time (costs currently borne in full by LC).

To gather the data required to address these questions, small-group interviews were conducted with 13 Champions during the Champions conferences held in the fall and spring of the 2009-2010 school year. The subset of Champions selected for interviewing were chosen by LC management to be a representative sample both in terms of their professional role (teacher, consultant, or administrator) and level of experience with LC. Four Champions participated in both the fall and spring interviews so as to provide insight into any changes in their perspectives over the intervening time in certain areas of interest. All interview sessions were recorded and transcribed for analysis.

Summary of Findings

Clear distinctions emerged in the fall interviews between those who had been designated Champions very recently and those who had been a Champion for a year or longer, in both their knowledge of LC and of their role as a Champion in the program. The new Champions generally had only a vague idea about the purposes and activities of LC and little awareness of the functions of a Champion in a school or district, and saw as their immediate task learning more about LC's resources and activities with the goal of understanding what LC offered to educators that could help to improve literacy and numeracy teaching. Once that understanding was established, they intended to look at how LC's offerings could be integrated with their school or district practice learning initiatives. Champions with a year or more of experience had a clearer sense in the fall of what they wanted to accomplish in serving as an advocate and facilitator for LC in their sphere of influence, and articulated more elaborated plans for building and sustaining LC participation in their school or board of education. They perceived the Champion role as including both advocacy and educational elements—explaining and demonstrating what LC had to offer to advance the professional learning objectives of potential new members, while building the knowledge base and participation levels of existing members. The more experienced Champions were able to delineate the specific strategies they used to accomplish these ends.

Those who were classroom-based indicted that they were putting most of their efforts into talking to their in-school peers about the advanced teaching strategies they were using in class and how LC was supporting these, and demonstrating their activities to their colleagues when asked. Experienced Champions with board-level responsibilities were working to inform both school administrators and teachers attending professional development events about what LC had to offer and inviting their participation. In the two districts with the greatest level of LC participation, the Champions' activities went beyond educating individual teachers to focus on creating and supporting a "microcommunity" of teachers dispersed across several schools in their district, helping the group to develop and act on coordinated plans for using LC resources and tools to advance literacy and/or numeracy teaching practices using technology.

All of the experienced Champions had a strong sense of the value of a teacher learning community for mediating professional growth. Community participation was seen as reducing teacher isolation, providing emotional support for risk-taking, offering opportunities for collaboration in developing strategies and plans, and affording hesitant or inexpert teachers an easily accessible pool of colleagues to whom they could turn for guidance. Nearly all of the Champions saw face-to-face teacher learning events as critical for establishing learning communities, and considered the Champions conferences to be very powerful as both sources of learning and as exercises in community building. Doubts were expressed about the potential for establishing and sustaining an LC learning community that functioned fully on-line, and whether in fact a large, inter-district LC online learning community was even needed. Even in those districts that were the most advanced in their LC participation, the district Champions thought that teacher inter-district collaboration was not yet feasible as more work still needed to be done to first strengthen and enlarge the LC microcommunity within their own districts.

There were some differences of perspective on the question of whether LC should primarily operate as a teacher-directed professional learning resource addressing individual needs or whether it should function more as an adjunct or complement to district or school-mandated professional development initiatives. However all those interviewed agreed that if LC was to flourish at the classroom level it could not be seen by teachers as yet another program or expectation added to their overloaded agenda, but as a way to accomplish something they were already doing in a more effective manner.

The Champions found their monthly teleconferences be an extremely valuable aid in advancing their capacity to facilitate change in their areas of influence. The calls served to reduce professional isolation, facilitate sharing, and recharge motivation, and to inform and educate participants about new tools and strategies for literacy and numeracy education that they could bring back to others in their districts. The Champions suggested several more strategies and resources that LC could bring to bear to support Champion effectiveness. (In many cases these suggested additions were thought to have the additional benefit of directly facilitating capacity building among other members of the LC community.) The recommendations endorsed by several Champions included the provision of additional situated exemplars of teaching which incorporates LC-promoted approaches and tools, to be made available in LC's video library and teaching artifact repository; the creation of "how-to" screencasts offering guidance in the use of LC tools, and in accomplishing common tasks done through the portal; the distribution of a document outlining the roles and responsibilities of a Champion, which also provides a repertoire

of strategies for those assuming the role; the provision of more numeracy teaching resources; the addition of materials related to assessment, such as rubrics and assessed e-portfolios; the offering of very short online courses on topics of high interest; broader use of Web 2.0 social networking tools such as Wallwisher to foster online dialogue on particular topics; and the institution of an informal mentoring system which would pair an experienced with a new Champion to facilitate the latter's induction into LC and their new role in it. The most requested change in the LC program was for a reworking of the organization and design of the LC portal, as it was widely held to be the single most significant inhibitor of LC participation due to its great complexity and poor usability. Several Champions were uncomfortable using it themselves and avoided demonstrating it to others for fear of discouraging interest in LC.

By the late spring, the Champions interviewed from the two districts that were the most advanced in their takeup of LC's offerings were able to articulate in detail their goals and plans for the following year. They were looking to build on their success over the current year in fostering new teaching activities and extending collaborative practices amongst their core group of teachers by working to draw new teachers into their LC microcommunities, both from schools currently participating in LC as well as a few additional schools in their districts. Those Champions new to the role in the 2009-2010 school year had by the spring developed a sharper sense of what their function was and were able to articulate specific strategies they were applying and activities they were undertaking to integrate teacher use of LC resources and activities in support of school or board literacy and numeracy improvement objectives. By that point in the year, all the Champions who had been involved in LC since the fall or earlier were confident that they could effectively communicate a rationale for participation in LC.

Of the three LC conference attendance funding approaches presented to the Champions in the spring interviews, only the first, which specified that a maximum of three district attendees would be funded in full, was considered likely to be accepted by board administrators. The idea of sharing teacher release time costs with other professional development initiatives a district was participating in or funding was not thought likely to be agreed to by most districts, as schools are often funded at different levels by these other initiatives, making a "matching percentage" system of funding from LC inequitable. A few champions favoured continuing with the current funding system, which requires the submission of district project proposals, because it requires districts to specify a detailed plan and rationale for using release time, and so provides a basis for accountability to the LC program. However, they were far from certain their districts would agree to start sharing the costs of the release time awarded in this manner.

Recommendations

A set of recommendations for the LC program was developed from an analysis of the Champions' experiences, perspectives, and suggestions. These recommendations are designed to accomplish at least one of two goals: 1) to address perceived LC program constraints that the Champions feel reduce LC's capacity to facilitate teacher collaboration around professional learning or limit the development of educators' literacy and numeracy teaching skills; and/or 2) to improve LC's ability to support the Champions themselves as they seek to expand the scope and effectiveness of the LC program within their areas of influence. The major recommendations follow:

- Make the redesign of the LC portal a top program priority, as the portal is seen as the single biggest impediment to the successful engagement of LC members with the program's resources, activities, and community, and its limitations work against the Champions' efforts to advocate for LC. Both experienced and inexperienced LC teachers should be involved in planning its restructuring and actively participate in an iterative cycle of user testing and revision to ensure that the updated portal fully meets the needs of its intended audience.

- Work closely with central office and school administrators to ensure that LC's suite of offerings mesh effectively with the literacy and numeracy professional learning objectives and initiatives of the participating districts. The goal here is to have potential LC teachers see LC as offering added value for accomplishing an educational objective they are working towards already rather than being viewed as an outside "add-on".

- When bringing new districts into the LC program, work with district administrators to ensure that the schools selected to participate have access to sufficient computer hardware and network bandwidth to make effective use of what LC offers in order to avert potential teacher frustration and a subsequent lack of participation.

- Continue to expand the activities and resources LC offers to support the building of teacher skill in numeracy education, as this is a rising concern in Champions' school districts.

- Develop a library of screencasts for delivery through the portal which guide viewers through the steps needed to accomplish common portal-based tasks (such as searching and navigating its various resource types, or finding exemplars of practice) and provide instructions in the use of its most popular tools. Make a screencast creation tool available so that Champions and members can create their own tutorials and add them to the portal's library.

- Consider offering short-term online mini-courses (say 2 hours of teacher time per week, over 3 weeks) on high-demand topics determined by member surveys. Where funding makes it possible, begin these courses with a ½ day in-person workshop to establish momentum and commitment and to provide a stronger basis for fostering online microcommunity activities such as reflective discussion and the sharing of assistance and resources.

- Expand LC's resource database of exemplars of technology-augmented classroom teaching and student work, including classroom teaching video.

- Explore the feasibility of making expert tutors (possibly York faculty) available to Champions on an occasional, on-demand basis for answering specialized questions about literacy and numeracy pedagogy so they can in turn better support their clients.

- Continue searching for alternative low-cost multipoint videoconferencing solutions that can effectively support collaborative work, as this functionality is still being sought by the Champions.

- Continue the practice begun this year of holding two face-to-face Champions events per school year as they are almost universally considered to be the most valuable professional learning experience LC provides for Champions.

- Poll all LC Champions to assess their support for: 1) Converting the fall conference to an orientation event for new Champions and LC members which introduces them to a limited set of technology augmented teaching strategies they can explore and promulgate; 2) Making the

spring conference a Champions-only event that explores advanced pedagogical topics and tools and incorporates a planning session. This bifurcation of conference types would allow LC management to better tailor and target conference events to the specific and distinct needs of novice and expert groups.

- Pair first-time conference attendees with more experienced "mentors" to assist in their orientation to and socialization into the LC community, and encourage this mentoring to continue online following the conference. Provide a parallel mentoring system for new LC Champions to minimize the time needed to build their capacity to operate effectively as Champions.

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I. Introduction

The Institute for Research on Learning Technologies at York University was contracted to undertake the research component for phase six of the Literacy and Numeracy Learning Connections Project over the 2009-10 school year. In conjunction with Learning Connections (LC) project management, it was decided that the 2009-10 research would focus on understanding the perspectives, activities, and plans of the LC Champions in their role as leaders in building participation in LC within their areas of professional responsibility. Its objectives were to examine what the Champions hoped to achieve in their contexts, the issues they encountered in working to build teachers' professional capacity through the LC program, what strategies they use to address those issues, and what changes they would like to see in how LC supports Champions and facilitates teacher change. A two-stage data collection procedure was used to look at the evolution of the LC Champions' goals and perspectives over the year, with small-group interviews being conducted with two groups of Champions at both the fall 2009 and spring 2010 Champions conferences held in Toronto.

The Research Design

The protocols for the small-group interviews were developed in conjunction with LC management to ensure that the information obtained would be of value to the management team in formulating their program plans and implementation strategies. The questions asked of the focus group participants in October 2009 addressed the following areas:

- What they are currently doing in their role as a Champion.
- Their understanding of the role of a Champion and how LC might better support that role.
- Their perspective on what teacher professional learning should be, and how well LC meets that standard.
- The role and function of a professional learning community in LC and how that should be fostered.
- Perceived barriers to building the professional capacity of both Champions and members through LC and how these could be overcome.
- Champions' plans for using LC to grow teacher capacity in their areas of responsibility.

In the second round of group interviews held in late April 2010, participants were not directly asked about their Champion activities over the year, as this topic was addressed directly in one of the Champions conference sessions held on the same day. The questions taken up with the Champions in the spring interviews covered the following topics:

- Their current conception of the role of the Champion, and how that role may need to change in light of increased school board participation in 2010-2011.

- How well LC meets teacher professional learning needs, and what additional elements might be needed in the LC program to meet those needs.

- How their ideas about professional learning communities have shifted over the year, and what value these communities can have.

- The knowledge and skills LC members need to effectively participate in the LC community, and how well LC is addressing these needs.

- Perceived limitations in the LC portal design and other elements of the LC program.

In addition, those interviewed were presented with a set of three possible approaches for sharing the costs with the LC school districts of LC conference attendance by their staff, and two ways for sharing funding of teacher release time for LC-related work with participating boards (see Appendix 1). Participants were asked which conference funding mechanism would be most effective in promoting participation by their school or district, and whether their district would take advantage of either cost-sharing option for release time funding.

In order to interview a majority of the Champions while at the same time keeping the interview group size at a manageable level, two interview groups were used in both the fall and spring, with each group being limited to a maximum of five participants. All interviews were taped and later transcribed for analysis. The volunteer participants were selected by the principal LC manager so as to constitute a representative sample both in terms of their degree of experience in the Champion role and their professional function in their board (teacher, consultant, or administrator). (For the purpose of preserving respondent anonymity, participant names have been replaced with pseudonyms in this report.) A total of ten Champions were interviewed in the fall, and seven in the spring (an eighth Champion selected for a spring interview had had to leave the spring conference early and so could not participate). Four of those interviewed in the fall were also interviewed in the spring; this continuity made it possible to ascertain changes in perspectives over the year.

As the majority of questions used in the fall and spring interviews were different, the findings from the two sessions are presented separately in the following section of this report. This organization has the advantage of providing the reader with a clear picture of when specific responses were made. Where a question in the spring interview is identical to or follows up on a question asked in the fall interview, similarities or shifts in response patterns over the year on the part of the Champions who participated in both interviews are discussed.

The report concludes by offering program recommendations developed on the basis of the interview analysis. Some of the recommendations focus specifically on improving the preparation and support provided to the Champions to facilitate their work in advancing LC's goals; others suggest changes to LC's professional learning activities and resources that are intended to enhance the program's effectiveness in building teacher capacity.

II. Findings

Fall Group Interviews

Champions' Background

The teachers interviewed varied considerably in the roles they play in their districts as well as in the extent of their LC and Champion experience at the time of the interviews. Relevant background information for each participant is presented below.

- *Lucy* is an elementary level mathematics and science curriculum consultant with strong experience in using technology in the classroom who was introduced to LC by a teacher in her board. She is serving her first year as a LC champion.

- *Richard* is in his first year as an e-learning consultant with his district. He was first exposed to LC in 2008-2009, and is in his first year in the role of Champion.

- *Anna* has been the IT teacher at her school for over a decade; she is a teacher/librarian and was introduced to LC by the previous program manager, Tania, a year ago. She was finishing off a maternity leave and was returning to the classroom in February. She was in her first year serving as a Champion.

- *Stephen* had just changed schools in his district, and was now teaching a split grade 5/6 class. In the prior year he had been a key player in advancing LC and the use of technology in the literacy program in his district, working from his position as a junior division elementary teacher. He was in his second year as a Champion.

- *Susan* is in her fifth year as a technology resource teacher in her district. She was on leave last year and assumed the role of Champion on her return; she had no prior experience with LC.

- *Aaron* teaches a split grade 5/6 class; he has extensive experience with LC, having been member for 5 years and a Champion since that group was started several years ago. His use of technology in teaching is extensive, and he has led LC workshops.

- *Lisa* is a principal of an elementary school who has a high level of comfort with technology use; it is her third year as a member of LC. She is the Champion for her district, and has served in that role in at least one previous year.

- *Ellen* is an elementary teacher (half-time) and literacy coach (half-time), with extensive teaching experience; she had become involved with LC the previous winter, and it is her first year as a Champion. She describes herself as a "risk-taker" who makes extensive use of technology in her teaching.

- *Deborah* had no prior involvement in LC, and had just been asked to attend the fall conference a week before it started. She is an experienced grade five teacher who serves as the informal technology lead at her school and is looking to become a technology resource teacher.

- *Peter* is a special assignment teacher with board-wide responsibility for classroom technology support who has been involved with LC for the past four years, and has

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been a Champion since 2008-09. He effectively functions as a full-time consultant as he has no direct teaching responsibilities.

Functioning as a Champion

Activities. The interviewees were asked about the current (as of fall 2009) activities they were undertaking in their role as a Champion. These varied considerably; those new to the Champion's role were engaged in learning more about LC and considering how its initiatives could support their school or district literacy and numeracy professional development priorities. Lucy indicated that she was sorting out how LC initiatives could be made to fit into what her board was already doing to support teacher learning and networking. Richard noted that he was still "wrapping my head" around what the champion role entails. He had introduced the LC portal to some teachers at a teacher professional development group meeting. Anna has been exploring the portal while on maternity leave. Susan had only been involved in one LC meeting and had not yet explored the portal. Ellen indicated that she was still learning about LC, but the other Champions in her district, who were consultants, had been coaching and modeling the use of technologies introduced to them by LC (most recently, VoiceThread), and that she along with her school colleagues had been "trying to integrate that into our daily practice".

Interviewees who had been Champions in one or more previous years were much more active in promoting LC-based professional learning in their areas of influence. Stephen, who had moved to a school in his district that had not been involved in LC in prior years, brought it into the district's LC initiatives as the fourth LC school. He had been a leader together with his former school principal and another experienced district LC champion, Peter, in developing a proposal for LC release time funding over the 2009-2010 year to allow staff from the four schools to work together on both literacy and numeracy initiatives, and to plan and develop resources to be posted to their district's LC portal area. "We are basically off to a really solid start already although is it only late October", he noted. The year's first half-day collaborative learning/development session in his district had been scheduled for mid-November, with the release time funding to be provided by LC.

Aaron logged into the portal twice a week to stay current on new LC offerings, which he would then share with his school colleagues if they indicated some interest. He was also making an effort to regularly share his own teaching practices with technology on the portal "to keep that communication going". The previous year he had been involved in showcasing the activities in his class using the LC portal and had been happy to be a part of that. Lisa, another experienced Champion, reported that she had encountered some difficulties in that role the prior year due to "the circumstance I was in and the people who had been involved in the project". This year she saw her advocacy and dissemination role as involving a multi-tiered effort:

> I think that I really have to concentrate this year on how to grow Learning Connections beyond my building and beyond the buildings where the other people who have been involved are and it's growing it up two levels – getting the teachers in the classroom to deliver the program and also getting the board office

people involved in understanding what the project is and how it helps to move our whole agenda forward. I think Algoma has been very good at doing that, so I'd like to be able to steal some ideas from Algoma.

Peter, in his consultant role, saw his LC championship consisting primarily of providing hardware and software technology support to his district's participating school principals and teachers.

Motivation. Those interviewed expressed different motivations for becoming LC Champions, although these were all connected to leveraging the perceived advantages of technology use in education for their students and/or colleagues . Ellen became a champion to learn more: "Every time I come to one of these meetings I learn something new. I always go home with lots of ideas and lots of ways we can integrate technology into the classrooms." Deborah was motivated to assume the role in order to learn about technology applications to teaching as well; she saw that teaching needed to evolve in a world of fast-changing technology to build student engagement or students would increasingly find school learning irrelevant. Lucy expressed the same view, adding that the technology also opened up a broader world of learners for students. For Richard, the forms of teaching promulgated by LC and the tools it offered were vital for students to learn about since collaborative forms of technology-augmented work were "the future for these kids" in their careers. As a resource teacher, he found that being an LC Champion allowed him to share these new teaching approaches in his district.

Peter saw LC as offering new opportunities for opening up his district to an understanding of technology use and to bring district people together in a connected learning experience. Aaron was initially motivated by the fact that LC was directly addressing the junior division, which he thought at the time (four years ago) was falling behind given all the new teaching materials that the Ministry was then making available at the primary level. Currently he finds his role as Champion helps him keep the "big picture" of technology use in mind, and allows him to see how others are developing students' abilities to use technology effectively for learning, something he thinks is important given that his junior division students "aren't there yet" in their use of advanced technology tools.

Anna had been motivated to assume a Champion position on the strength of the example provided by another Champion:

> She has been a person I have taught with and she's so heavily involved and also proud and excited about it and I thought that if she's in on it then I want in on it too. So I thought I'd jump on her train and see where it goes.

Stephen offered a unique perspective on the value of assuming a Champion role, and involvement with LC more generally:

> It's an amazing professional development and it gives us a chance to do what we're trying to get the kids to do. We're actually trying to get the kids to get

connected and collaborate with others and by being involved with LC, we have a chance to model that and we can connect and collaborate with others.

Stephen was also encouraged by the fact that other teachers were willing to explore new teaching options with him. "Just to know that people are willing to look at a new tool with a open-minded attitude is a very strong motivation."

Susan's interest had been sparked by talks she had had with colleagues who had been involved in LC the previous year, and by the fact that LC project work was embedded in the classroom and teacher driven. "I think it's nice to give teachers the opportunity to see what might benefit their students and to grow organically from there as opposed to me coming in and telling them "This is what you are to do"."

As an administrator, Lisa said the Champion role fell to her because she happened to be the principal in the group "that day". She did not have a specific motivation for becoming a Champion, and felt the "true champions" were the teachers in the classroom (a view Peter shared). She did value the opportunity the role gave her to learn and share more about technology use in teaching: "If I can be here to see that and take it back to someone who didn't see it and they try one thing, they get excited about learning".

The Champion's role. Asked about their conception of the LC Champion's role, those interviewed were in general agreement on what the main functions of a Champion should be. These included the sharing with colleagues of strategies and tools for improving student achievement in literacy and numeracy they had learned from and through their participation in LC initiatives and the LC community. They also thought it important that Champions work to persuade potential member-teachers to explore what LC had to offer through its programs and its portal, and to encourage and facilitate LC participation by existing members. A few interviewees mentioned the necessity of working with school and system administrators to foster leadership support for teacher participation and access to needed resources such as release time and appropriate technologies.

Resources needed. The participants offered a number of different responses when asked what resources they needed to support their Champion role. Deborah expressed frustration that in her new school she did not have the needed hardware she was used to accessing at her previous school, and she noted that her experience highlighted extant problems of inequitable access to technology within and across schools that made promulgating technology-augmented practices difficult. Her new students lacked the same level of access to technology that her prior students had enjoyed, and as a result she found them to be "a few years behind" those in her earlier school in developing their facility in using technology. Ellen saw these resource inequity issues as presenting an ongoing challenge for Champions, although she personally considered herself lucky as she had access to many more computers than her school colleagues due to her participation in a laptop program. A few teachers mentioned Internet access as a constraint. Aaron thought the inequitable access issue would gradually be ameliorated on the software side given the increasing use of Web-based applications like Google Docs that do not require costly licenses to access, but both he and Peter saw continuing resource limitations around videoconferencing they hoped would be addressed. Adobe

Connect Pro had proved unreliable for multipoint videoconferencing involving more than three locations. Susan asked for better videoconferencing tools to support collaborative work:

> I'm looking at it from the standpoint of where can we connect with other people and not re-invent the wheel.... How do we do that? Do we do that by doing some videoconferencing and have kids doing different things working together and so then the project gets even bigger because we have more than one classroom project like it's more of a collaborative thing? Wouldn't that motivate you to get your assignment done because you're meeting online with somebody tomorrow to talk about it? I am looking at stretching it a little bit more that way too which is why I'm thinking the video part would be great.

Two classroom teachers wanted to know if they could be sent the hardware resource kit that LC used to distribute to participating schools (2 laptops, a webcam, and a data projector) as they felt that this equipment would have a significant impact on what they could do with their students.

The LC portal was universally thought to need improvement both in its organization and its usability. In its current form it was seen by several Champions as impeding their ability to effectively advocate for the program. Lucy indicated that she was not comfortable enough navigating its complexity to demonstrate it to colleagues; a few other Champions were also reluctant to show it for fear of putting off potential LC participants. Susan thought that the portal information needed to be reorganized to be usable:

> I think that if LC is to grow, especially with classroom teachers with limited time, I think the organization [of the portal content] has to be subject specific, maybe it's math, maybe it's videoconferencing, however it's organized, that everything is easily accessible.

The need for better portal organization to support LC promotion was echoed by Richard, who also indicated that a better system for swiftly signing up new members was needed; it had taken him "almost a month of emails back and forth" to obtain his access to the portal the previous year.

Stephen brought up a need he had raised in an interview the previous year: he wanted to see a greater focus given to numeracy in the LC program and the professional learning activities and resources it provides. He said that LC had started to address that deficiency but still thought it had a ways to go to create a proper balance between its literacy and numeracy resources.

Lucy talked about a need for providing better customizing options for posting large collaborative projects. She thought if schools posted a project they were working on to the portal they should be able to log in directly to that project area of the portal.

Teacher Professional Learning and Community Building

The Champions' views on what teacher professional learning should look like were solicited. A number of elements thought to be important to teacher professional learning were mentioned, many by several participants. There was overall agreement that teacher professional learning needed to address the unique needs of each teacher and afford options for self-direction, while at the same time providing opportunities for teachers to share and work together with those having the same needs and interests. Lucy, for example, expressed the view that professional learning should be differentiated so that teachers can access it "from where they are and move themselves forward in some way with a lot of choice, whether that be supported or through self-learning". She recognized that teachers "don't know what they don't know" but that this could be addressed by sharing with them what other people are doing. Another teacher remarked that there needed to be "pockets" provided for teachers "who are at the same place, to communicate and develop together". Stephen saw a requirement for a balance between self-directed teacher learning and administratively mandated learning directions in order to build a common knowledge base necessary for collaborative work. Two teachers mentioned the need to assist teachers in overcoming their inhibitions about letting students take the lead in mastering new technologies and subsequently learning from their students; they noted that teachers' fears of ceding authority and their desire to appear as the "expert" in class frequently blocked students' assumption of more active and collaborative roles in the learning process.

Other affordances needed for effective professional learning were mentioned by individual respondents. Susan emphasized the need to provide teachers with the hardware and software resources in the classroom they required to implement what they are learning from LC to avoid teacher frustration or withdrawal. She also saw a need to provide mentors who can model teaching strategies in-class. She thought that in the LC context those with more experience could be using a chat tool to "share their mistakes so that new teachers don't make them". Anna cited the importance for her of seeing student work exemplars of new curriculum and tool applications; "that is when the big ideas come, and I can make connections... if I can see what your class has done with VoiceThread, that could help me learn that tool at the same time as I am learning its applications". Both Stephen and Lucy agreed that such demonstrations were important— "otherwise we are just focusing on the tool" (Stephen). Lucy felt that teacher beliefs are shifted when they see what students get out of a new innovation and what the students are capable of doing. "Once they try it and see the results, they are engaged."

Aaron saw the importance to teacher professional development of not simply focusing on one tool or strategy for a short while and then moving on to the next, but sustaining a focus so as to "see an innovation through", reflecting and acting on outcomes and feedback from the use of the innovation provided by colleagues and students to revise new classroom practices in an iterative fashion. He thought this reflective cycle needed to be applied to the collective work of the Champions as well, to answer questions such as "How will I support my teachers differently next year based on what happened this year?" He thought that with the earlier start LC made this year by holding a conference in October, "we have huge potential to see something go full cycle". He saw the

affordances LC offered for staying connected with teacher-participants after they dispersed from the conference as being vital to allowing the continuation of a reflective cycle within the participating group, and he contrasted this potential for ongoing collaboration with an outcome common to traditional professional development activities, in which any connections made with colleagues from other schools are typically lost when the face-to-face sessions are over.

Peter noted that the recent relocation of a few of the teachers in his district who had been active in LC last year was not impeding current LC work in his district. "If the teachers are motivated, the LC community is always there. It's not set to a specific location."

When asked what needed to be added to LC to better support teacher professional learning, the participants came back to the need for LC to offer more accessible, effective opportunities for sharing of experiences and resources through the portal. "There needs to be a quick and easy way to go in and see what has been shared in there without getting lost in the portal", Richard stated, and others agreed. Anna thought there should be a tool provided for synchronous chat, and perhaps a monthly scheduled chat time on a posted topic. Virtual office hours were also suggested, although one participant indicated that this had been tried and had received next to no use. The idea of short online mini-courses running for a few weeks on specific topics such as the use of StoryMaker for digital storytelling was thought to be a viable option by a few participants.

Lucy highlighted the need for LC to be able to offer customized support that dovetailed with the other initiatives boards were actively pursuing. In the case of her own district she noted that "We have literally fifteen new initiatives coming with money—money arrives and then we are to figure out what to do with it." LC needed to offer support for one or more of these initiatives in a manner that helped them achieve their objectives without LC itself being seen as an add-on by teachers who did not have the time to pursue additional non-mandated activities. She was asware that this was a top-down approach to professional learning , "but that's the reality of what we are doing as a board". The necessity for LC integration with existing professional development initiatives was mentioned by a few other respondents as well. Any teacher perception that the LC program or its activities were "add-ons" was considered to be a major impediment to their acceptance and use. When the approach being used by the Algoma district to integrate LC support into their Critical Pathways literacy initiative was described to one group of Champions, it was considered to be a viable model with applicability elsewhere.

Two participants highlighted a need for better support for assessment from LC. It was thought that a greater focus was required on precisely how teachers making use of new strategies for literacy and numeracy development could provide evidence of success that might convince others (including administrators) of the value of these new approaches. The use of e-portfolio-based assessment was considered worthy of exploration

Stephen was of the view that the onus was now on the Champions to develop their own capacities as LC, with its monthly teleconferences, two annual conferences, and on-site visits from the LC manager, was doing about all that it could do to support their learning.

The interviewees were asked about their notion of what constitutes a professional learning community, what it would mean to extend it to an online environment, and its importance in the LC context. Participants saw a learning community as being comprised of a group of colleagues working together towards shared professional learning objectives through an ongoing series of informal or formal meetings. An online version of a learning community was thought to offer additional possibilities for teacher capacity development. Peter mentioned that it afforded new ways of communication through the use of blogs and forums that made posing questions for colleagues or sharing classroom work easier and more flexible. Ellen thought an online community provided more autonomy to teachers at a level that went beyond what she experienced in her school's professional learning community. She saw the preservation of teacher autonomy being combined with collegial support in the LC community and thought teachers appreciated it:

> There's all this new stuff and you figure out how you are going to use it within your own classroom and then you have all the support through the community to help you and to reflect and move forward. I think that is what makes it a good professional learning community.

Aaron thought that virtual learning communities had an advantage in that they offered more flexible access to expertise at various levels. He considered LC's online community effective in providing this access.

Drawing on their experiences with other professional development initiatives that have used an online community component, several teachers emphasized the importance of incorporating occasional face-to-face meetings into a virtual community program. They felt strongly that this had been a key element in the perceived success of other online/hybrid communities. Susan, for example, stated that "In my experience it's the teachers who have made connections face-to-face that were more likely to go online and share and ask questions versus the ones who don't know each other." Stephen discussed the importance of this face-to-face element within the LC context as a means of maintaining and advancing the collaborative learning and work being done within the small LC community of teachers in his district. Stephen emphasized the need for LC to support, through release time and expertise, a nucleus of teachers in a school or board as they engage in collaborative learning and development work. In this way a culture of mutual support, exploration, and risk taking can be created within the group that will foster effective professional learning, learning which can eventually be disseminated more broadly within the district. It was widely agreed that a blended approach to building the LC community was the way to go; the online component of such a community was important for providing ongoing social as well as pedagogical support for classroom innovation and the furthering of shared learning and development, but was thought insufficient by itself to build a working community.

Participants were asked how teacher involvement in the LC online learning community could be built up and sustained. Responses focused primarily on the perceived impediments to involvement imposed by having to rely on the LC portal to seek out and communicate with colleagues sharing the same interests, to access tools, and to find or

post teaching artifacts of interest. "You have to be able to find what you want quickly and the [LC portal] web site is not about finding anything quickly" was a representative remark made by one teacher. More experienced Champions noted that there had been some reformulations of the way the portal was organized, but these were not were seen as having been very effective. Peter and Deborah thought that community members needed to be consulted more closely to determine their favoured way of organizing the portal content. The portal needed to demonstrate more clearly to potential LC members the benefits they might expect from their involvement, such as the learning of more effective ways to promote literacy and numeracy, and the rich resources participants can access in the LC community. Aaron recommended highlighting the subscribe feature so that members would be kept aware of new developments of interest, possibly sparking greater community involvement.

Obstacles to Capacity Building

The interviewees were asked if they were aware of any other obstacles to developing teacher capacity through the LC program with respect to either literacy or numeracy teaching skill advancement. In response, several participants expressed their concerns about the state of support for numeracy teaching, which was seen to lag considerably behind that for literacy, and was an area of increased focus for their districts and schools. There had been a math-focused presentation in that morning's conference session which they thought had been valuable, but they wished to see more numeracy resources made available, as well as greater LC participation by teachers who were doing advanced work with mathematics at the elementary level who could share their practices and experiences. Lisa expressed the perceived need:

> I think a lot of teachers are worried about how they make sure that the students know all they need to know in math. How do they cover all the expectations in that curriculum? How they can use another tool that's really going to engage students so they can learn all of those expectations?

Ellen thought that teachers see a large learning curve associated with mastering mathematics teaching tools "and so they open the textbook. There isn't a learning curve there because they have been doing it for a long time." Lisa concurred, noting that it's much easier to think of how to use a tool like Comic Life to do a literacy assignment than a math assignment. Deborah noted that it was relatively easy for a consultant who is not facing classroom time pressure to develop the kinds of applications that were demonstrated in the morning math session but very challenging for a classroom teacher to do so, so LC should be facilitating the sharing of that kind of development work more effectively.

Deborah saw the major barriers to LC's capacity building as being the large set of existing expectations the average teacher faces combined with a relative lack of available time and technology resources to meet these expectations. She provided a rich description of the conundrum teachers face:

> If we all know we're supposed to be technologically inclined and we are to imbed that in our program, then give us the time and money to do that. There is so much out there, so many fantastic ideas, books, websites and we're expected to pick and choose and integrate and put in and become experts. There's just not enough time, money, access or resources. It's exciting that things are web-based because we don't have to get something, but we still need a computer to get to it.

Lisa, a school administrator, noted that a significant barrier for her around developing a teacher learning community focus in her school using LC was the broad range of teacher ability levels and openness to change found in her staff:

> I have to balance that brand new teacher who is so keen and uses all these things and the teacher who has been teaching for 20+ years and still wants to be involved with the new technology and a teacher who doesn't want to be involved with any of it just because they don't want to do it. They just want to get paid and go home.

Lisa thought that patience was required to succeed in such an environment, and that she had to accept that success would come in small steps. Deborah also cited teacher resistance to technology as still being a significant barrier in certain cases: "The teacher that just wants to collect their paycheque. They are retiring in a year and can't be bothered." Aaron noted that lack of follow-through by some teachers. He recounted how he had opened his classroom to work on class website creation with a number of teachers face-to-face at lunch for two weeks:

> Last week I went in to see how many had finished their website, because we are going live in a week, and none had done it. To me I thought it was the easiest thing. I know I have comfort with technology and it's not going to be as easy for everybody. I had teachers from a broad spectrum of experience and it's just one of those things where I spent a lot of time trying to get it going because it's a big paper saving initiative and if someone is sick for a week they can keep up with assignments. It just didn't happen so I have accepted that it's going to be slow even when you think it's a no-brainer.

A few other barriers to capacity building were noted in individual respondents. Stephen indicated that in his large district, the distance between schools imposed the greatest obstacle. To address this, the LC teachers in his board had relied heavily on the online affordances supported by LC. He was "very pleased" with LC's support: "I honestly don't know what else the program can do to support us." On the substantive side, Stephen did see a need to augment support for teachers working with special needs students:

> A focus or a separate section on what we do for struggling learners or special education students—that's something that is missing. We have a lot of strategies for literacy and numeracy but we have to teach these strategies to struggling learners as well and I don't see a whole lot of strategies being shared that way.

Technical Challenges to LC Use

When asked if there were any technical challenges community members faced in using LC services in their schools or districts, currently existing inequities in technology distribution within and across both schools and districts were again brought up by several of those interviewed as presenting obstacles to both developing teacher capacity and LC participation. These inequities led to variable and often restricted access by both students and (to a lesser extent) teachers to the computer infrastructure required to make use of the tools and teaching resources LC offered.

A few teachers indicated that they were not satisfied with the videoconferencing solutions as they currently stood and wanted to see a resolution of the difficulties encountered when four or more locations are included in a Adobe Connect Pro conference session. Anna found that her school's firewall interfered with her access to many resources.

Additional Leadership Development Resources

A few participants offered suggestions for additional resources that LC could provide to support the development of their own expertise and leadership ability in the community. Lucy, a science consultant, wanted mentors made available who possessed skills in specific areas so that she could connect with someone who has skill in an area and could work on "getting good at one thing" with that person. Being out of the classroom she had the time to do this but needed the expertise to draw on. She also requested the creation of short "how-to" screencasts and webinar sessions. Richard referenced his participation the previous year in a short LC course on putting together a Moodle that he found was effective, and recommended offering more of that type of resource. Stephen suggested that a software tool for the easy generation of screencasts be made available of the LC community to help develop expertise:

> So if it was Richard doing a BitStrip or a VoiceThread and he did a screencast, we could go to the portal and see that. We could watch Richard use his screen, going in and doing it from start to finish. It would have an audio. Most of them have between one and five minutes so it's not like tied into sitting there for hours. They are short and right to the point.

Stephen thought that developing a library of such screencasts would provide a valuable learning resource for both Champions and other LC community members. A few participants noted that screencasts had been used effectively for just-in-time training in their own districts.

Champion Plans for the 2009-2010 School Year

The Champions interviewed differed widely in the range and depth of their plans for advancing LC participation and using the program to build capacity in literacy and numeracy teaching over the 2009-2010 school year. Those who had just begun their participation in LC such as Ellen and Deborah had not formulated any concrete plans.

Anna, also new to the program this year, planned to learn more about it and work with a colleague in her school to share and model its use. "In our school it's small enough that if people see things happening then it can spread.... It doesn't take much to send emails and ask them to take a look."

Susan, a technology resource teacher who had taken up the Champion role at the start of the year on returning from leave, planned to integrate the use of LC activities and resources within the context of projects already initiated by the team of four other technology resource teachers she worked with in her district, "making them aware of this project and letting them use the portal". The members of her team "are working from K – 8 doing these kinds of [ICT] projects all the time with teachers so they are in a very good position to identify what's going on and who might be willing to go a little bit deeper, try some new tools and formalize things a little bit." The resources teachers led occasional workshops but primarily worked side-by side with teachers in the classrooms. Susan highlighted the importance of presenting LC as not being another programmatic add-on:

> It's just taking what you [the classroom teacher] are doing and maybe going a little deeper and sharing your information with an outside audience as well as what you're already doing in the schools. That's what we've already started talking about.

Lucy, a district elementary science/math consultant, was in her first year as an LC champion; her district's involvement in LC was at approximately the same point that Algoma's had been at the start of the 2008-09 school year in that her board administrators had made a decision to involve a total of four teachers (three new to LC, one a very active and experienced LC participant and Champion (Aaron)) in a coordinated expansion of LC activity in the district. She intended to focus on getting the new LC teachers in her district to "try something with it" in their classrooms, to increase their comfort levels, and to "share their experiences with other groups of people through our networks that we already have happening". She still did not feel fully comfortable with LC and had yet to integrate its offerings into the board's professional learning programs. She was looking to increase her own knowledge of it, and planned to take a team approach to working with the LC teachers in her district's participating schools. Her co-Champion, Aaron, was looking to work with the three new LC teachers in the board to keep participation in his district "moving forward and not losing [its] momentum." He was thinking about exploring the use of Moodle with the other LC teachers this year.

Richard was in his second year of involvement with LC; he had recently assumed a new role as an e-learning consultant at his board. Up to this point the north end of his large district had been more actively involved with LC due to the efforts of another Champion working in that area, and he planned to expand LC participation in the south end of the district this year. He intended to explore LC's potential with principals, getting their buy-in by showing them the power of what it had to offer. He anticipates the principals will then get their teachers working with it.

The most fully developed plans for the year were presented by two Champions from the same board, one which had several teachers actively involved with LC the previous year.

The focus in 2008-09 had been on using LC to advance the district's literacy improvement objectives (primarily relating to the use of the provincially-advocated Critical Pathways strategy), and the Champions planned to continue that work with tools like BitStrips and VoiceThread. But Stephen indicated that their main goal in 2009-2010 was to "look at what we can do with the web tools to enhance our numeracy programs— not to just focus on the tools but look at the pedagogy behind them". Stephen and Peter raised a number of questions that their district was going to be considering this year:

- How can work produced with these tools be assessed?
- How the tasks involved in using the tools can be broken down for struggling learners?
- How will the district post developed resources to the portal?
- How do we grow teacher involvement in our four participating schools?
- How do we add new schools to the group?
- How do we deepen our participation in the portal and teacher participation in the LC community?

The implementation strategy employed last year, and which they plan to continue with given its relative success, was to

> ...get the teachers to focus in on either one piece of technology or strategy to use something, take it back, work with the students, come back and share that information to see what worked and what didn't. To ask the hard question: "Did it work or not with the effort you put into it?", because sometimes we can get caught up in something and realize it would have been better to have done it this other way. It's that collaboration that will strengthen and contribute to Learning Connections.

Stephen indicated that the Champions would be conducting occasional workshops in the LC schools. He and Peter intend to be strategic in choosing the teachers to participate: "There are certain people we have in mind who we think would be a good fit and a good start to approach them first and other people we think might stay away from right away and then just try and grow that capacity." They intended to focus on a three-step problem solving model and were looking at the use of VoiceThread to develop a problem solving activity in which students will collaborate and engage in conversations around mathematics problems. As had several other interviewees, Stephen emphasized the importance of integrating LC activities into existing initiatives: "The biggest thing we're trying to show people is it's no an add-on, it's not an extra; it's another way of doing what we're already doing. It's basically not over and above what we're already teaching."

Spring Group Interviews

Champions' Background

Four of the Champions interviewed in the spring had also participated in the fall interviews (Richard, Stephen, Aaron, and Ellen). Relevant background information for the three additional Champions who participated in the spring sessions is provided below.

- *Wendy* is an elementary math literacy resource teacher in her district. She has been involved with the LC program for several years.

- *Carl* is a grade 5/6 classroom teacher who is in his second year as an active member of the LC community although it is his first as a Champion.

- *Lee* is an assistant principal in charge of IT for a small district that has been a member of LC for several years but had not been active in the recent past and was looking to revive its participation. He had only recently become a Champion, and was attending his first LC conference at the time of the interview.

Functioning as a Champion

Participants were asked what they currently saw as being their role and functions as Champions, and (for those who participated in the fall interviews) if and how their perception of this role had shifted since the last interview. Stephen indicated that there had been some shift in role in his district, as the Champion focus in the fall had been on strengthening the group of five LC teachers in his board internally while developing "a cohesive plan to move forward". He indicated that this process had been successful so that now his focus was shifting to bringing more teachers within the member schools into the LC-driven teaching initiatives, and then moving on from there to incorporate more schools from the district into the LC program. But he still saw a major part of his role as networking with teacher colleagues in his own school, talking to them about the LC program, overcoming resistance and fostering "buy-in" to the program and the teaching practices it was promoting. He wanted to bring his colleagues to the point where they are "open towards using the tools that are out there and could see why they would use those tools". He sees his Champion role as largely manifesting in his informal contacts with teachers. He had begun to notice a shift in teacher response to his networking efforts, partly as a consequence of leadership assistance from his principal:

> What's happening is the principal puts out a memo every week and teachers are starting to see that I'm being dismissed from classroom for a half-day or full day for Learning Connections and now they are approaching me and asking me about Learning Connections again. They always use the word "again" because it has come up several times. Usually I get the response of nodding of the head, yeah, yeah, yeah, o.k., and they move on, but now I'm starting to get some second and third questions where they really want to know about the program. I guess in order to answer your question, the next step is because they are approaching me,

continue to gently prod these people and hopefully next year we will have some of these teachers on board.

Carl, a teacher from the same district as Stephen, saw his role as that of sharing what he had learned with colleagues at his school, and like Stephen had had mixed responses to his advocacy. "They pop in and check out what I am doing and some of them have expressed interest but being late in the year they are not ready to take on the challenge yet." Carl also saw an ongoing need in his role as Champion to reinforce his ties to the other LC members in his board through regular meetings "so that we don't just go off and do our own thing and get lost in the shuffle".

Ellen had developed a clearer sense of her role in bringing LC on board in her district. In the fall, she had been completely new to LC and had not really known what a Champion was meant to do. In the spring interview, she described her function as a literacy coach as allowing her to "pair up" the use of what she does to move literacy education forward with the use of technology in the classroom

> ... so that the teachers are seeing how we can use the technology along with the literacy initiatives and so that's been very helpful in our building in moving the teachers ahead in the use of technology. Denise, who is our Learning Connections lead with our board, is very good at supporting that as well. So, with the three of us, we are in the classrooms and bringing the technology in and we're showing the teachers, modeling how to use it.

Ellen and her fellow board Champions were not introducing teachers to the LC portal; instead they had been "filtering down" LC strategies and tools to teachers, working directly with them in their classrooms to introduce the use of podcasting and VoiceThread, and making a more intent effort to show even reluctant teachers how simple technology can be to use with students. Asked why the portal was being avoided, Ellen indicated that she found it to be "really hard to use". "You have to be careful with what you take to teachers, you don't want to overwhelm them. It's really baby steps." She saw the introduction of teachers into the LC community as more of a long-term goal.

A new strategy that Ellen and her Champion colleagues had been applying this year has been the pairing of proficient students with other students so that peer learning can occur and the teacher "doesn't feel that they have to have all the knowledge".

Like Ellen, Richard had been in a learning phase in the fall as he had just assumed a Champion role in his district. He too had developed a clearer sense of his function in that role: re-acquainting teachers in his district with the LC program (some of them had been participants in prior years but had run into technical difficulties that led to a hiatus in district involvement), demonstrating how the program was now much stronger, and pointing out opportunities available to teachers through the program. He stressed the importance of ensuring that teachers who faced numerous demands to implement new classroom strategies did not view LC activities as additional work, but as "simply another way of doing what you are already doing, maybe even a way that will be easier and better after a while".

Wendy saw her role as being one of raising awareness of LC in a large district with site-based management schools that can have different initiatives and foci for their teacher learning efforts. "It's showing them each of the areas where LC would help them." She thought a key message for her to deliver was how engaging LC-augmented activities are for students and how student engagement is essential for successful learning. Teachers, she felt, need to see some evidence of that engagement. Wendy did not see her Champion role as having changed over the year, but due to substantial personnel changes in her district's consultancy and IT departments continued efforts were required on her part to educate new personnel about what LC had to offer.

Aaron had seen no real change in his role as Champion over the year either; he continued to talk to his fellow classroom teachers about LC, showing what he has been doing and encouraging them to join. He noted that he addition of a second champion at the board level (Lucy) had significantly advanced the level of participation this year, with four teachers being actively involved since October. More intensive use of LC-funded release time over the year for LC teacher meetings in the board had helped to advance LC-based professional development and build a more tightly focused internal community of practice. Aaron has found that the increased flow of knowledge within the larger LC community as more districts become active in it had made it more challenging for him to stay on top of developments, and he appreciated that there was now another Champion in his district to help with that effort.

Jeffery saw his role as one of re-energizing the LC program in his district. The program had been actively used in another school in the district but that school had closed and the staff disbursed; LC awareness had fallen off, and there had been no project that used LC over the 2009-2010 school year. Lee viewed his job as one of awareness raising and promotion, and of helping to initiate an LC-based project in the district.

Participants were asked if they thought that their role would change next year when a number of additional school districts were likely to be joining the LC program. Aaron thought it might lead to Champions making greater efforts to establish cross-district collaborations in project and curriculum development. This would require more networking across districts on the part of the champions to determine which individuals might be compatible for collaborative work. Ellen did not see any real changes being needed, although she thought that an expansion of LC participation could lead to greater opportunities for sharing. Stephen saw a possible shift in what collaboration would mean in practice with a large increase in participant numbers, and he found it hard to predict how it would affect the Champions' role.

Given the increased numbers of new participants and Champions expected next year, several participants thought it would be very important to provide more background information to new Champions to better define the parameters of their roles and responsibilities. Wendy laid out a list of questions that she and the three others in her interview group agreed needed to be addressed in orientation materials for new champions: "What is it you are going to do as a Champion? What is your journey in the role of Champion going to look like? What are you committing to?" She also thought providing a glossary of LC-related terms and acronyms would help to increase the

comfort level of new members. "In order to bring people along you have to be able to give them something."

It is worth noting in this regard that several of those interviewed recalled being disoriented and uncertain when they assumed a Champion role as to what was expected of them. Richard remarked that for him, learning about a Champion's role had been a daunting "trial and error process" in which he spoke to other Champions and tried to model his actions on what he saw them doing. He stated that it had taken him several months to get to a point where he knew the LC program well enough to promote it properly. Carl talked about how his first experience of an LC conference had been "overwhelming" and that it had taken him the best part of a year to get comfortable with the knowledge and opportunities LC presented.

The Champion Community

Several participants mentioned the personal value they took from the mutual support the Champions provided to each other, both in terms of advancing their own professional knowledge and practices, and in developing their ability to be effective Champions. Aaron, for example, thought that most Champions "were not so on top of things that they will figure out [everything] on their own. I can't say that I could have figured out most of this on my own, not with my priorities." He relied on others in the Champion community to help him learn and resolve challenges. Ellen described how the mutual support the Champions network provided was valuable to her: "For me to have somebody that can email when I'm struggling with something we're using and get a really quick answer back – that's huge". The fact that the Champion network included administrators, teachers, and consultants was thought valuable as it made it a flexible system for meeting different needs.

The monthly Champions teleconferences were thought to be a valuable asset in supporting and maintaining the Champions community as a collaborative group. Stephen found them more beneficial this year than last year, primarily due to higher numbers of Champions participating throughout the school year, which led to more productive discussion and knowledge sharing. "With ten or twelve online there is much more creative discussion." He found the dialogues much more focused, and that the addition of district portfolio areas within the portal had made it much easier to share resources during the teleconferences by simplifying the organization of resources:

> Now [our district resources are] going into the district portfolio so it's much easier to maintain a meeting that is on topic and on task when we just simply update each other on what has been going on within our portfolio. I think it's much improved and I'm getting a lot more out of it this year.

Aaron found that the monthly teleconferences were very effective in meeting his informational needs:

> I come out of those meetings with enough information to keep me going for the next month because the other people in the program are relying on me as a

Champion and even though I don't report to them formally, I feel that through those meetings I've learned what I need to know. For example, the one we had on Tuesday, I'm thinking we were just going to focus on what's going to happen today [at the conference], but what I liked about it was we had our regular discussion and report... realizing that other school boards that are taking some of these tools and making them part of their school board as opposed to York or whatever. I'm thinking that is great. I need to know these things as a Champion because if somebody in the school board wants to make a connection and asks what do I know about this, then I can say I have learned through our monthly meetings and I can tell you the name of the person in this school board and they are way ahead. I don't think that would happen if we were meeting only once or twice a year.

Richard described the value the monthly teleconferences had for him as both a social and professional motivator and a source of inspiring ideas:

Sometimes when you are working in a school you can be working with a group of people who may not agree with all of this technology and the philosophies, the changing philosophies and learning models, and just being in contact with people who are like minded and are motivated the same way, it's just that refresher and keeps you going in that role. I found them very valuable. Even this year where I am working, just hearing about those other projects and hearing about some of the tools that are out there, as far as ideas and how to implement them into your board as well.

Although Jeffery had not participated in any monthly conference calls, he had heard from several teachers who felt isolated in their exploration of innovative uses of technology in their teaching due to the indifference or resistance to their efforts evidenced by their in-school colleagues, and he thought the monthly calls were an effective way for the Champions to counter this isolation. This had in fact been Wendy's experience; she found that the monthly teleconferences 'give you that little bit of a push, because you do feel like an island". She found being able to communicate on a regular basis with like-minded people to be "so energizing". The class also provided her with contacts to follow up with on a one-to-one basis when some topic of interest is raised.

Those who had participated in the teleconferences found them well organized and efficient, and did not see the one hour a month it required being too big a commitment to make. They also liked the timing of the conferences at 3:30pm. While Adobe Connect proved unable to provide an effective videoconferencing experience for the monthly meeting, it was sufficient to allow document sharing, and as the participants in the calls knew each other for the most part, the lack of video was not considered a big drawback. The fact that all call participants were not forced to be active but could simply take part as 'lurkers" was thought to be important, as the passive listening option gave those with less experience an opportunity to learn what was going on in the LC community without feeling any pressure to contribute to the discourse.

The interviewed Champions were asked if they felt that they were at a point were they could effectively communicate a good rationale for participating in LC. Nearly all indicated that they were. Lee said that he was confident in that respect, and did not have any reluctance advocating for LC. Wendy saw a wide range of areas she could "plug LC in" for teachers of diverse interests and abilities. "There are little areas I can go in and say 'try this and try that'". In his classroom teacher role, Stephen finds it most effective to quickly demonstrate something he is doing with his students to visiting teachers. "It only takes five minutes, it only takes a little time to get into it". Richard thought that a handout would be useful to have to distribute to potential members expressing an interest, and Wendy agreed this would be valuable for providing a rationale, overview, and web links for further exploration. Sometimes when she meets teachers she cannot pull them away from what they are doing to get them to a computer, and in those circumstances she thought having a brochure to distribute would be very useful.

Stephen indicated that he and others in his district had been able to communicate their rationale for LC involvement effectively, and cited as evidence the fact that there was support at all levels at his board for LC participation, from the Director on down. "We are able to come across and say, 'Here is our plan, and here is how all three levels have supported it, here's where it has been successful... and here is the tangible evidence. I think we have definitely rationalized our involvement in the program."

Aaron thought he was now able to clearly express a rationale for LC activities in a way that focuses on the students and gives a clear reason why teachers "should give up another couple of hours of their already busy schedules to pay attention to this". He felt that the message needed to be kept simple so as not to overwhelm those being introduced to LC. As a group, the interviewees emphasized that introductory activities needed to be focused on a small scale that can give teachers visible results quickly, so as to encourage them to take the next step. Stephen described the strategy that had worked well in his district:

> ...really narrowing it down and doing one thing well and then find the next step because doing that one thing well gets people motivated, they are able to see something resulting from that right away and they are able to build up some confidence. So that has really the focus this year and we were able to succeed with it.

Teacher Professional Learning

In response to a question seeking their views on what teacher professional learning should look like, the interview participants brought up a number of elements they thought it should include. Several thought that the incorporation of occasional face-to-face meetings into teacher professional learning initiatives, even if they were primarily online, was important for their success. Carl cited the significance of the meetings the LC teachers had in his district every five weeks in contributing to his personal success:

> That's been huge for me. I'm comfortable with technology but [for] some other people it seems to come naturally. So we meet every five weeks together and it's

face-to-face and if I'm having problems, my colleagues are right there and can help me get through it very quickly as opposed to phoning or emailing back and forth. Those face-to-face meetings have been huge.

Carl also saw these meetings as contributing to sustaining the momentum of innovation: "It kept what we were doing fresh in our minds—we knew every five weeks we'll be coming together, we can share our problems and share the successes and then set our goals for the next five weeks." Lee referred to his experiences with other professional development projects where face-to-face meetings had been an important, since "a lot of our staff are still more comfortable learning that way rather than from a webinar or something more remote".

The Champions were unanimous in praising the face-to-face Champions conferences as effective in meeting their own professional learning needs. Many talked about the richness and relevancy of what they experience at these events, and the value of the exemplary practices they see demonstrated and the success stories they hear, both for inspiring their own teaching efforts and giving them valuable new knowledge to share with others. There was a general consensus that the recent move from one to two Champions conferences per school year constituted a major boost to the whole LC program, giving it more impetus and focus and increasing the level of knowledge sharing.

More generally, connecting to other teachers to share and reflect, and having opportunities to learn from others' experiences were mentioned as important elements of professional learning. Especially in the context of online professional development, such connections were thought needed to reduce the practitioner isolation discussed earlier. Wendy emphasized the need for professional learning to link to the district's specific directives and initiatives so that it falls within the province's School Effectiveness Framework (SEF) for school professional development. This, she said, allows it to seen as an extension of what teachers already need to do, "and that is going to be the selling feature for a teacher". (The view that LC activities cannot be seen by teachers as yet another add-on to their work expectations was expressed strongly by nearly every respondent at some point in the interviews.)

Lee seconded the importance of linking professional development to the SEF, referring to such professional learning as job-embedded, which he thought was critical for getting buy-in from senior staff at the board level as well as the classroom teacher. He described in some detail the context for LC's role in professional development he sees in his district:

> I think it's really important that initiatives like this [LC] be seen as fitting into that framework and that it's part of what you do in order to meet the expectations for SEF and everything else the teachers are being asked to do. We have four big initiatives—we are getting together to have a big ideas conference about how we take the character education, the inclusiveness, the environmental, and the aboriginal education. How do we weave all of this together and have four more initiatives among the schools. Those [initiatives] seem to be dumped on the

principals to carry out in the schools and they dump it on to the teachers who feel like every year there are more and more things being added so if [LC] can be part of the ongoing professional development that just helps them do what they do everyday in the classroom and they don't see it as being something new, it's just a different way of doing what I have to do anyway, that is important.

When the group conversation turned to how effectively LC was meeting teachers' professional learning needs, participants brought up several additional factors that they thought important and/or were perceived to be deficient in the LC case. Wendy thought that care had to be taken that LC did not become just a repository of teacher information, as these already existed; she wanted it to be living, relevant entity, and she gave an example of how it could function:

> It could be a way that teachers, throughout the province, if we are going to have this focus around social justice, could discuss how you deal with social justice in your board. It gives us a chance for us to network and spin off each other's work then and take it and then make it part of our work.

Wendy thought it vital that LC do a better job of addressing assessment:

> [It should] include an assessment piece in it because we have to assess. It has to meet those needs of those teachers. Those are the things they deal with every day. "How am I going to assess this? What are the tools to use?" I don't think we address enough of assessment in here. We talk about all of this stuff. Today we touched on it a little bit but I think to make it more useful for teachers, they have to see it.

Wendy saw a need for the assessment piece in professional learning around digital technology to be very explicit because teachers don't readily see how assessment of digital portfolios is done. "As we get higher up the grade levels", she remarked, "teachers don't value their ability to assess observations and what they see kids doing; they think they need a printout." Carl thought the assessment learning needs of teachers could be better addressed by LC if it offered more exemplars of student digital work assessed at the four levels. He specifically mentioned posting podcasts as exemplars of public speaking, and pointed out how teachers could be encouraged to record student podcasts at the beginning and end of the term to see how much they had improved. Lee mentioned how in a morning conference session he had seen how VoiceThread could be used for assessing student work, and thought that was the kind of assessment learning that LC needed to bring out more clearly. Richard indicated that in his experience non-written forms of digitally-based assessment received more attention from students and were acted upon more often, and that LC should bring this advantage out.

A final element considered important for LC's effectiveness by a few respondents was the tailoring of its professional learning resources and activities to what one interviewee termed "the distinctive needs of the junior and intermediate level teacher" who teaches all subjects and is not a specialist.

The most commonly critiqued component of LC's professional learning resources and offerings was the LC portal. Every interviewee who commented on it (and that was nearly all of them) thought it needed a major revision to make it more user-friendly. It was thought to be too hard to learn to use, difficult to search and navigate, to be intimidating to new members, and to present a major barrier to bringing new teachers into meaningful participation in LC. It was unclear where resources being uploaded should be posted, or where they could be found. Accessing resources and tools was thought to require clicking through too many levels. Even those more experienced Champions who were used to working with it themselves and who acknowledged that there had been some improvement in its design compared to its original incarnation (such as the recent addition of portfolio areas for specific school districts) were still generally not comfortable demonstrating it to non-members.

Online Communities and Learning Connections

Participants were queried about if and how their ideas about what constituted a professional online learning community had changed over the year, and what value such a community could have. They had very little to say regarding the former; in fact several Champions commented in response to the question that participation in face-to-face activities was the best and most fruitful element of LC, and Aaron questioned whether LC was an online community as most of the learning and exchange took place either at the Champion conferences or during the monthly teleconferences. Ellen commented that compared to the time required to go online and figure things out "on your own", it was far faster "to come here, hear it, try it, go home, disseminate it." However in light of earlier comments made by several interviewees about the value of mutual sharing of knowledge and experience throught he teleconference calls, and the importance of being able to support each other, both for their own learning and motivation as well as for advancing their capabilities as Champions, it is clear that being a member of a Champions community was vital to all of them, even if they did not explicitly view their group as an online community.

Ellen wondered if reflective discussions were already happening in schools without teachers using an online community, and as a result teachers do not feel the need to go online and discuss issues with a broader audience. Stephen was the only respondent to directly address the benefits of an active online LC community when he talked about its importance as a model for student learning, which he indicated was a new perspective for him on its value:

> It's something that we want to model for the students. When we take advantage of an online professional learning community, it allows us to network with other people. We have students that are doing that all the time, not across districts but they are networking in their own way all the time. Doing that in our own personal lives, showing them how we network and how we go out and get information from each other in an online community, then we show them that it is possible and they can eventually build their own networks too.

Despite this perceived value, Stephen indicated that the LC Champions and teachers in his district are deliberately bypassing participating in larger community discussions at present:

> We've actually talked about that in our district meetings—Peter, the IT person from our board, he has mentioned about the [LC] discussion forums and we have basically told him that we have to take baby steps. We are coming together as a team and really developing and planning and getting to know each other and becoming comfortable and confident and then once we get that then maybe the next step is cross district collaboration, planting those seeds, and then the next step is to get into discussion with those people. You can't do it all at once.

A few interviewees wondered if the portal forum was the right venue for advancing community discussion. The use of Wallwisher had been demonstrated in the conference sessions, and that along with VoiceThread was suggested as possibly being less linear and easier-to-use media for online dialoging. Stephen mentioned the possibility of using Ning to set up interest groups within the larger LC community.

Stephen discussed the history of online community discussion in LC, pointing out that Aaron had spearheaded some good forum exchanges last year, but that these had not been "picked up on" in the current year. "There is a chance of LC to truly be an online community" he concluded, "but it hasn't manifested." He thought totally open-ended discussion initiatives that incorporated no expectations or accountability were not likely to succeed:

> Do we come back every month and share our learning or do we just leave it open ended because eventually I'm sure we know what would happen over time. It trails off. So it's definitely a good idea but I think steps need to be put in place to give it a better chance of being successful.

Aaron wondered, given the failure of his earlier effort at LC community discussion-building to be sustained, if there was any need for larger online community yet, although he did think that the day would arrive when LC would need such a community:

> There will be a need for a virtual community at some point because we are growing and learning the tools and becoming familiar with how the sharing will happen. There is a definite disconnect because we are talking about our students blogging and collaborating online but we are not doing it ourselves with each other.

Aaron thought that as the LC project added more districts the need for better online community facilitation would become more pressing because personal contacts would not longer be sufficient:

> As we grow bigger, we're not going to know anyone's name anymore. We won't know who the Champion is and who isn't. Like right now you know most people but in a year from now when this is bigger, maybe you don't.

Skills and Knowledge Needed for LC Participation

Participants were asked what skills and knowledge they felt new members of the LC community needed to become meaningfully involved in its activities and to benefit professionally from what it had to offer, and what LC could do to help develop these prerequisites. Several respondents felt that new members needed a better, more systematic understanding of the program, which could be fostered by providing a codified orientation to the LC program and its components and rationale, and suggested ways that this could be delivered. Wendy thought equipping new users with a short overview (perhaps in brochure form) that outlined LC components and provided a step-by-step guide to getting to introductory material and tutorials in the portal would be a good first step. It should, she felt, point teachers to a few online exemplars to look at that explicitly show how LC resources and tools can be used in classroom practice. Making available easily locatable tutorial screencasts demonstrating portal navigation for various purposes as well as the use of tools and resources were suggested by several interviewees as an orientation strategy. Carl proposed that new members attending a conference for the first time be paired up with a more experienced mentor for the event "just to tell them what to expect, this is what I went through. Show them what you had done, and how you felt in the beginning." This idea was seconded by Wendy who thought this would lessen the induction burden on the LC manager.

The Champions thought it important to provide new members with opportunities for participation in face-to-face events to help them more quickly develop a sense of the value of what LC offers and to build the social bonding to support later collaboration. Personal contacts with experienced members were thought to help foster attitudes and skills that discussants viewed as essential to success with LC: an open-mindedness to innovation, a willingness to take risks, and the capacity to persist in the face of obstacles and frustrations.

Additional LC Improvements

The participants were asked if there were any areas or components of LC that they thought were deficient or lacking in some way. Nearly all of the responses given reiterated prior points made about perceived limitations of the portal: its ease of use, the barriers it presented to searching for resources of interest, and the complexity of its organization. Carl mentioned again that it was hard to determine where they should upload the resources they had developed, and Stephen cited the difficulty he had encountered in finding a discussion forum the LC manager had set up to look at how district Champions can build capacity and sustainability in their districts: "I had to go back to the notifying email and click on the link there – I could not find it in the portal." Ellen mentioned that she would not even show the portal to prospective members "because there is just going to be a level of frustration". The organization and layout used by Nings was recommended as a possible model for reformulating the portal layout, and once again the provision of screencasts providing brief guidance to help users accomplish what they wanted on the portal was suggested.

The one other limitation cited concerned difficulties in receiving timely responses to requests for new teacher accounts that were encountered by one champion. This same Champion also sought clarification as to why certain Ontario boards were considered champion boards. Another interviewee thought that automatic authentication based on one's board email address should be implemented to simplify signup.

Future LC Funding Options

The interviewees were presented with a printed document outlining three possible scenarios for future LC conference participant funding, and two approaches to cost sharing with LC districts for funding LC teacher release time that had been developed by the LC manager (see Appendix 1 for these). They were told that because the LC program was looking to increase the number of participating districts without proportional increases in its funding, it had to look for ways of using its resources more efficiently. They were first asked which of the three conference funding options would be the most effective in promoting participation in their districts, and any strengths or limitations they saw for any of the three options. There was unanimous agreement that option 1, which provided funding for three delegates from each LC district with one person funded from each level (central office, school administrator, teacher) was the most likely to receive support from the districts and result in the most attendees, as it provided full funding for three attendees. The other two options were thought likely to be a much harder sell to districts given that in option 2 only new attendees would receive full funding and in option 3 all attendees would be partially funded by the districts. Most of those interviewed did not think their boards would be likely to send staff under options 2 or 3. Under option 1, Wendy indicated, principals could use their discretionary funds to send additional staff, and would be more likely to do so if there was a commitment from LC to fully fund the core group. However she noted that exercising that discretion at the school level involved choosing which additional teachers were to be funded which raised equity issues that could lead to the involvement of the teacher unions. Still, such equity concerns would be even greater if either of the other two options were implemented as school administrators would then be partially funding most or all attendees.

There was some concern expressed that option 1 needed to be more flexible, so that districts could send for example two teachers and a consultant, or whatever other mix of personnel they considered most appropriate for meeting their needs. One respondent thought LC would be better served by reducing the number of conferences per year back to one, and funding all attendees. Aaron offered an intriguing suggestion that others in his interview group found appealing: devoting the first conference of the year to orienting and activating new members, with a few champions attending to mentor the beginners and lead conference sessions. The second conference, held later in the year, would then be made a Champions-only event, allowing the Champions to explore more advanced applications and teaching strategies without the danger of confusing or overwhelming those new to LC, and providing an opportunity for them to hold planning sessions for the following school year. Holding the new-member conference in the fall would give these members ample time to embed and ground their conference learning by trying out the new tools and strategies they have been exposed to over the rest of the year. Finally, the notion of videocasting the LC conferences in real time was found very

attractive as additional district staff could then participate from remote locations without incurring travel expenses.

Most of the champions were doubtful that given competing demands for funding their districts would be open to sharing the cost of any release time provided to LC teachers under either of the two options suggested. Wendy indicated that for that funding support to come from her district office she would need a superintendent to be "on board, and I don't have that level of commitment right now." Stephen thought that in his district the second option of aligning LC release funding so that it would be used in tandem with that provided for other initiatives might work as long as the LC schools were qualified for that other funding. He pointed out that if, for example, only some of the LC schools in his district were participating in Schools in the Middle, and that was the target initiative for blended funding, then this complementary model would not work. He thought that an agreement on the straight cost-sharing model could probably be successfully negotiated with his district's administrators if the percentages were made more favourable to his board. Aaron thought that requiring the districts to contribute some of their own resources to the LC initiatives might result in more district buy-in and commitment.

Stephen personally favoured the proposal approach to release time funding, and thought that districts that are able to develop clear and specific proposals should possibly be given extra resources. Both he and Aaron felt the existing proposal process worked well, and that the district teams that have developed well-formulated plans have "earned their funding". The proposals themselves were seen as providing a benchmark for accountability for the release time provided.

III. Conclusions and Recommendations

The group interviews yielded a considerable amount of information about the Champions' perspectives on LC and its strengths and limitations as a program for supporting teacher capacity building, as well as their view of the role of a Champion and how they engage that role in practice. The two-stage interview process also served to illuminate the changes in the knowledge and activities of Champions as they gained more experience in the role. Those newly assuming the position generally had only a vague idea about the purposes and activities of LC and little awareness of the functions of a Champion in their school or district, and saw their immediate task as learning more about LC's resources and activities with the goal of understanding what LC offered to educators that could help improve literacy and numeracy teaching. Once that process was completed they thought they would be in a position to consider how LC's affordances could be integrated into existing professional learning initiatives underway in their own schools and districts. By the spring, these Champions had a sharper sense of what their role was and were able to articulate specific strategies they were applying and activities they were undertaking to integrate teacher use of LC resources and activities in support of school or board literacy and numeracy improvement objectives. By that point in the year, all the Champions who had been involved in LC since the fall or earlier were confident that they could effectively communicate a rationale for participation in LC.

Champions with a year or more of experience had a clearer notion in the fall of what they wanted to accomplish in serving as an advocate and facilitator for LC in their sphere of influence, and articulated more elaborated plans for building and sustaining LC participation in their school or board of education. They perceived the Champion role as including both advocacy and educational elements—explaining and demonstrating what LC had to offer to advance the personal and institutional professional learning objectives of potential new members, while building the knowledge base of existing members. They related the types of strategies they were applying to this end; not surprisingly, these were closely tied to their positions in their districts. Champions who were classroom teachers focused on talking to their in-school peers about the advanced teaching strategies they were using in class and how LC was supporting these, and demonstrating their activities to their colleagues when asked. A few more experienced teacher Champions had also offered informal sessions for in-school colleagues which explored the use of certain tools to support literacy or numeracy objectives, and/or had led similar sessions for teachers from other in their districts. Champions at the district level were putting their efforts into informing both school administrators and teachers attending professional development events about what LC had to offer and inviting their participation. The one Champion who was a school principal put her efforts into encouraging the involvement of a group of teachers in her school.

In the case of the two LC boards with the highest levels of participation, the Champions' activities went beyond training or coaching individual teachers to focus on creating and supporting a "microcommunity" of teachers drawn from several schools in their district, helping the group to develop and act on coordinated plans for using LC resources and tools to advance literacy and/or numeracy teaching practices using technology. The

Champions from these boards had a clear sense of how these groups should function as a teacher learning community to provide mutual support at both the social and cognitive level and collectively generate new knowledge as they explored new tools, ideas, and practices. By the spring, a Champion from the one district of the two which had had several teachers active in LC initiatives the prior year indicated that there had been a broadening of focus in their planning for next year. In the current year the Champions' work in his district had centred on strengthening the existing team of LC teachers as an active collaborative community; for the next year they were looking to scale up participation in that community through the inclusion of new teachers both at the existing LC schools and in a few other schools as well.

All of the experienced Champions had a strong sense of the value of a teacher learning community in mediating professional growth by reducing teacher isolation, providing emotional support for risk-taking, offering opportunities for collaboration in developing strategies and plans, and affording hesitant or inexpert teachers an easily accessible pool of colleagues to whom they could turn for guidance. What they were less convinced of was the potential for establishing an LC learning community that functioned fully on-line. During the spring interviews, more emphasis was placed upon the importance of face-to-face teacher learning events (especially the Champions conferences) as an essential requisite for building community; these were seen as providing a common knowledge base for collaboration and sharing and establishing the vital social connections needed for the development of interpersonal trust. The LC Champions conferences in particular were lauded for the learning they fostered and the social networking they enabled. The more experienced Champions thought that the contacts made and sustained in these face-to-face contexts could open the door to eventual inter-district collaboration in the future (although most Champions did not feel that their own districts were yet advanced enough in their internal use of LC to be ready for that form of collaboration). But doubt was expressed in the spring interviews by a few of the experienced Champions about the need for a larger, inter-district *online* LC community (beyond that supported by the Champions' monthly teleconferences) and several questioned whether such a community could in fact be sustained.

There were some differences of perspective on the question of whether LC should primarily operate as a teacher-directed professional learning resource addressing individual needs or should function more as an adjunct or complement to district or school-mandated professional development initiatives. However all those interviewed agreed that if LC was to flourish at the classroom level it could not be seen by teachers as yet another program or expectation added to their busy lives, but as a way to accomplish something they were already doing in a more effective manner. They also felt (and thought that it was part of their roles as Champions to ensure) that teachers should be exposed to concrete exemplars of effective practice using the strategies and tools LC was promoting to motivate interest in participation. Several requested more exemplar resources in the form of short classroom teaching video clips, student work examples, and marking rubrics.

Informed that several more boards (and consequently Champions) would be participating in LC in 2010-2011, the interviewees offered several suggestions for more effectively

orienting new Champions and members to the program. They recommended the development of a document clearly specifying the roles and responsibilities of Champions and discussing LC advocacy strategies which could be given to new Champions to facilitate their orientation to the role. The creation of short screencasts for introducing both Champions and new LC members to the purposes, tools, and resources that LC offers was suggested. It was thought that some of these screencasts should provide walkthroughs illustrating how common tasks could be accomplished using the portal. Several interviewees also saw a need for an introductory brochure which they could hand out to potential LC members to help them understand the potential value of the LC program for enriching their professional practice. The institution of a two-tiered mentoring system to ease the entry of new members into the LC community and to quickly orient new Champions to their new roles and facilitate the development of their effectiveness was also suggested.

In both the fall and the spring interviews, the most significant internal issue the Champions saw facing the LC program centred on the perceived deficiencies of its portal, which they personally found hard to use and were reluctant to demonstrate to others. Based on their experiences with introducing LC to colleagues, they concluded that the portal's organizational complexity and poor usability would be likely to dissuade significant numbers of teachers from participating in LC. It was unanimously considered the LC program component most in need of reworking, both to help Champions function more effectively and to eliminate a major stumbling block to teacher participation in the LC community.

Several suggestions were made for the provision of additional elements to LC that could help the Champions accomplish their role more effectively (and would in many instances also be of benefit to other community members). Those endorsed by several Champions included the addition of more numeracy-oriented resources and activities (as professional learning around numeracy was receiving much more attention in several districts); the addition of materials related to assessment (especially in mathematics), such as rubrics and student work exemplars (as this would address a perceived need at several boards); and the inclusion of resources to support the education of special needs students. A few interviewees thought that making available experts in specialized subject areas who could mentor the Champions "on demand" could make the Champions themselves more effective mentors in the field. Short (2-3 week) online course of topics of high interest were suggested as a potentially effective form of learning activity for both Champions and LC members that would not require long-term time commitments. The development of video clips demonstrating the classroom application of LC-advocated pedagogical strategies which incorporate the use of software tools was recommended by several champions; these clips were thought to be a powerful learning resource for teachers, who needed to be given a clear vision of how their own practice could benefit from new approaches to teaching and how these could be implemented. To enhance the communicative affordances available to the LC community, participants thought that a better solution for multipoint videoconferencing needed to be made available, and suggested that alternative Web 2.0 tools for asynchronous collaboration and dialogue such as Wallwisher be explored.

The Champions noted the existence of several external obstacles to effective LC participation that LC program managers could do little to address beyond engaging in advocacy with school and board administrators to shift policies and expenditures in desired directions. These included limitations to the technology or network resources available in some LC classrooms which seriously constrained the use of LC-based tools, resources and technology-augmented teaching strategies, and great distances between LC schools in certain district which made it difficult for teachers from these schools to hold periodic face-to-face working sessions. It was also felt that teacher capacity building was frequently inhibited and slowed by more intangible human factors, such as teachers' resistance to change and fear of risk-taking, which required patience, resolve, and coordinated action by both LC Champions and district and school leaders to address.

Of the three LC conference funding scenarios presented to the Champions, only the first, which specified that a maximum of three district attendees would be funded in full, was considered likely to be accepted by board administrators. While the interviewees could not be certain, they felt that requiring the boards to cover half of the costs for every attendee (or any attendee who had been before) would have a major impact on attendance rates. The proposed sharing of release time costs for professional learning with other programs a district was participating in was not thought likely to be agreed to by most districts, although one Champion considered it possible that his central administration might negotiate some form of shared cost arrangement. Aligning release time so that costs are shared with another program being run in the district was thought to be problematic where there was inequitable participation by different schools in the other program. A few champions favoured the funding proposal system because it required districts to specify a detailed plan and rationale for using their release time, and provided a basis for accountability to the LC program, but they were far from certain their districts would agree to share the costs of the release time granted.

Recommendations

The recommendations presented below have been developed from an analysis of the Champions' experiences, perspectives, and suggestions presented in this report. Each recommendation has at least one of two objectives: 1) to ease or eliminate perceived LC program constraints that the Champions feel restrict LC's capacity to facilitate teacher collaboration around professional learning or limit the development of educators' literacy and numeracy teaching skills; and/or 2) to improve LC's ability to support the Champions themselves as they seek to expand the scope and effectiveness of the LC program within their areas of influence.

1. Make the redesign of the LC portal a top program priority, as the portal is seen as the single biggest impediment to the successful engagement of LC members with the program's resources, activities, and community, and its limitations work against the Champions' efforts to advocate for LC. Use a participatory design process for the reshaping of the portal. Both experienced and inexperienced LC teachers should be involved in planning its restructuring and actively participate in an iterative cycle of user testing and revision to ensure that the updated portal fully meets the needs of its intended audience.

2. Work closely with central office and school administrators to ensure that LC's suite of offerings mesh effectively with the literacy and numeracy professional learning objectives and initiatives of the participating districts. The goal here is to have potential LC teachers see LC as offering added value for accomplishing an educational objective they are working towards already rather than being viewed as an outside "add-on".

3. When bringing new districts into the LC program, work with district administrators to ensure that the schools selected to participate have access to sufficient computer hardware and network bandwidth to make effective use of what LC offers in order to avert potential teacher frustration and a subsequent lack of participation.

4. Continue to expand the activities and resources LC offers to support the building of teacher skill in numeracy education, as this is a rising concern in Champions' school districts.

5. Offer more resources to assist teachers working with special needs students and those facing other learning difficulties.

6. Develop a library of screencasts for delivery through the portal which guide viewers through the steps needed to accomplish common portal-based tasks (such as searching and navigating its various resource types, or finding exemplars of practice) and provide instructions in the use of its most popular tools. Make a screencast creation tool available so that Champions and members can create their own tutorials and add them to the portal's library.

7. Consider offering short-term online mini-courses (say 2 hours of teacher time per week, over 3 weeks) on high-demand topics determined by member surveys. Where funding makes it possible, begin these courses with a ½ day in-person workshop to establish momentum and commitment and to provide a stronger basis for fostering online microcommunity activities such as reflective discussion and the sharing of assistance and resources. Designate a discussion facilitator to foster reflective dialogue among course participants.

8. Expand LC's resource database of exemplars of technology-augmented classroom teaching and student work, including classroom teaching video. The Champions consider these to be key artifacts for generating interest in LC and providing evidence of the value of what LC is advocating.

9. Explore the feasibility of making expert tutors (possibly York faculty) available to Champions on an occasional, on-demand basis for answering specialized questions about literacy and numeracy pedagogy so they can in turn better support their clients.

10. Continue searching for alternative low-cost multipoint videoconferencing solutions that can effectively support collaborative work, as this functionality is still being sought by the Champions.

11. Continue the practice begun this year of holding two face-to-face Champions events per school year as they are almost universally considered to be the most valuable professional learning experience LC provides for Champions.

12. Poll all LC Champions to assess their support for: 1) Converting the fall conference to an orientation event for new Champions and LC members which introduces them to a limited set of technology augmented teaching strategies they can explore and promulgate; 2) Making the spring conference a Champions-only event that explores advanced pedagogical topics and tools and incorporates a planning session. This bifurcation of conference types would allow LC management to better tailor and target conference events to the specific and distinct needs of novice and expert groups.

13. If the costs and technological barriers entailed are not prohibitive, consider adding a live webcast of the LC Champions conferences so additional board staff can participate remotely.

14. Pair first-time conference attendees with more experienced "mentors" to assist in their orientation to and socialization into the LC community, and encourage this mentoring to continue online following the conference. Provide a parallel mentoring system for new LC Champions to minimize the time needed to build their capacity to operate effectively as Champions.

IV. Appendix 1: Funding Scenarios Handout for Group Interviews

In our discussions with LNS representatives, sustainability of funding was definitely an issue. In light of this we are looking for input in regards to funding of champions conferences, and release time.

Scenarios for LC Funding:

1. Continue to provide two Champions conferences each year with funding pre-determined for each district. Each district would receive funding to send three delegates that represent tri-level support (i.e. one teacher, one school administrator, and one central office leader) to each conference. Additional delegates would be welcome to attend at the expense of the district. (An unlimited number of additional district participants could join from their district via online videoconferencing.)

2. Provide funding for two Champions conferences on a sliding scale. New participants to be fully funded. Second year and beyond 50% funding to a maximum of three delegates per year. (An unlimited number of additional district participants could join from their district via online videoconferencing.)

3. Provide 50% funding for all delegates attending the Champions Conference to a maximum of 3 delegates per district. Districts would be expected to cost share attendance at this event. (An unlimited number of additional district participants could join from their district via online videoconferencing.)

Release Time:

1. Release time to be allocated to districts using a proposal form to support professional learning, with districts to share costs at 1:1

2. Aligning current release models with other initiatives in the school district (such as schools in the middle) to allow for greater access to funding for more districts.