

# **LBS Capacity Assessment Report**

## **A Collaborative Partnership**

*Partners: Deaf Literacy Initiative,  
The Canadian Hearing Society  
& George Brown College*

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ONTARIO DEAF LITERACY  
AND  
E-CHANNEL CAPACITY  
ASSESSMENT REPORT

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# ONTARIO DEAF LITERACY CAPACITY ASSESSMENT REPORT

## PURPOSE

The purpose of this report is to present the findings of a capacity assessment<sup>1</sup> undertaken at the request of the Deaf Literacy Initiative, George Brown College and The Canadian Hearing Society. The focus of the capacity assessment was to explore the strengths, weaknesses, opportunities and threats within the Deaf literacy community in relationship to the development of an e-Channel for the Deaf. The research was funded by the Ministry of Training, Colleges and Universities Service Delivery Branch.

The report begins with a brief background description of the Deaf literacy community and the proposal to develop an e-Channel for the Deaf (an online classroom or meeting space for Deaf adult literacy learners<sup>2</sup> and practitioners). The methods used for the assessment are then described, followed by the findings. The report ends with a discussion of the findings and with recommendations to address the capacity issues of the Deaf literacy community and the development of an e-Channel for the Deaf.

## BACKGROUND

Ontario has 14 literacy programs that serve Deaf and Deafblind adults. These programs are situated in Brantford, Durham, Hamilton, London, Ottawa, St. Catharines, Sault St. Marie, Sudbury, Thunder Bay and Toronto. The Deaf literacy community includes the managers, practitioners and learners involved with the above programs. A recent report by the Deaf Literacy Initiative, *Ontario adult literacy curriculum: Report on program and service deliver gaps* (2010b), suggests that the number of Deaf literacy programs could be expanded to include five more services situated in Barrie, Belleville, Kitchener/Waterloo, Milton, and Windsor. In addition, although the Ministry of Training, Colleges and Universities (MTCU) provides funding under the Support for Apprentices with Disabilities program, the report highlights that there are currently no Apprenticeship or Vocational Training pathways for Deaf adults in Ontario (Deaf Literacy Initiative, 2010b). Communication technology with its flexible learning capabilities may be an avenue to address some of the challenges faced by the Deaf literacy community.

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<sup>1</sup> Appendix A: Glossary of Terms provides definitions or descriptions of some of the less familiar terms and concepts used in this report.

<sup>2</sup> The terms learner and student are used interchangeably throughout the report.

In 2000, the Ministry of Training, Colleges and Universities (MTCU) adopted flexible and distance learning as a means to overcome the barriers of geographical distance, lack of transportation, work/family commitments and disability to the delivery of Literacy and Basic Skills (LBS) training. This coincided with the expansion of online learning in the Canadian educational scene. MTCU funded AlphaRoute, an online adult literacy environment managed by AlphaPlus. The success of this venture, in combination with face-to-face training, led to the development of the e-Channel Strategy for Literacy.

In 2006-2007, three agencies were selected to develop curriculum and services for an Aboriginal, an English and a French literacy e-Channel.

In 2009, the Ontario Government ear-marked funds in its budget for the development of an e-Channel for the Deaf. In January 2010, at a meeting of the Ontario Deaf literacy agencies MTCU introduced e-Channel as a priority for the Deaf literacy community. The Deaf literacy community participants and the Ministry representatives agreed to engage in a capacity assessment in conjunction with this initiative.

## **METHOD**

In order to collect information about the capacity of the Ontario Deaf literacy community with regard to the development of an e-Channel for the Deaf, key informants and stakeholders were identified through the Deaf Literacy Capacity Assessment Advisory Group. The stakeholder groups identified were the managers, the practitioners and the learners in the Deaf Literacy and Basic Skills programs.

In addition to interviewing key informants and stakeholder groups, scans of relevant literature, both academic and non-academic, were conducted throughout the study. Literature was found through academic databases, government websites, Deaf literacy program websites, Deaf advocacy websites and program archival material. The literature informed the overall conduct of the study as well as providing a theoretical rationale for some of the recommendations.

A questionnaire was developed based on preliminary interviews with key informants and a review of the literature about Deaf literacy training, online learning and technology capacity issues. In addition two surveys developed by AlphaPlus were reviewed to obtain a sense of the types of questions asked in the past (AlphaPlus, 2010). The initial questionnaire was reviewed and edited for language and cultural sensitivity by Deaf members of the Capacity Assessment Advisory Group. The questionnaire provided a

guide for the interviews and was adapted depending on the stakeholder group and the responses of the participants. The overall questionnaire is attached as an appendix (Appendix B).

The study employed purposive and snowball sampling to reach as many participants as possible. Interviews were carried out face-to-face, through email or by telephone (hearing participants). Face-to-face interviews with Deaf participants employed American Sign Language (ASL), were videotaped and later transcribed. ASL interpreters were used in face-to-face interviews where the interviewer was a hearing individual and not conversant in ASL. Detailed notes were kept in these interviews as well as in the telephone interviews. Email interviews were text based and required no transcription.

Participants from the practitioner group were recruited at the Deaf Literacy Initiative 2010 Conference that took place at the beginning of May. An ASL video was developed to explain the purpose of the study and practitioners were invited to participate. Eleven practitioners from 10 of the 14 literacy programs participated in face-to-face interviews with a research assistant fluent in ASL. Managers were also introduced to the study at this conference and were contacted after the event by the lead researcher. Seven managers or coordinators were interviewed and were representative of urban, rural and northern Deaf literacy programs. Learners were recruited at two Mayfests, annual cultural events in the Deaf community that took place in Toronto and Ottawa. The interviews were conducted by a research assistant fluent in ASL and were video recorded. Eight learners were interviewed, five from the Toronto area and three from Ottawa.

Key informants included MTCU Literacy Consultants, an Employment Program Consultant working with the Deaf Community, staff at AlphaPlus, the Executive Director of the Deaf Literacy Initiative and staff at George Brown College. Half of these participants were interviewed at the beginning of the capacity assessment and half towards the end of the data collection. Although the sample size in this study was small, data saturation appears to have occurred as ongoing analysis of the interview findings over time produced little new information or themes.

The data from the interviews was analyzed using descriptive statistics and qualitative analysis. Qualitative analysis, rooted in grounded theory was employed in exploring the open responses to the questionnaire. Grounded theory is "concerned with understanding the meaning of human experience, from the subject's own frame of reference" (Holosko, 2006, p. 13). As a qualitative approach, grounded theory provides the greatest amount of learning possibilities through which to discover, understand, and gain insight into the topic under investigation.

Analysis of the data involved reading and re-reading the transcription of the videos and the interview notes. Atlas.ti software (version 6) was employed to code the text, and to extract significant statements. The researcher assigned descriptive names or codes to identified units of words, sentences, and paragraphs, and sorted the codes into categories. The researcher compared the likenesses and differences in categories, and noted any connections (Creswell, 2003). Clustering statements into codes and categories of codes assisted the researcher in making inferences and suggesting themes.

This report has been circulated to the Deaf Literacy Capacity Assessment Advisory Group and the stakeholders group for general verification of the results.

Last, but not least, three members of the Deaf Literacy Capacity Assessment Advisory Group travelled to Gallaudet University. Gallaudet University is a world renowned educational institution for Deaf and hard of hearing students and is a major research institute for the study of visual language and learning, communication for Deaf and hard of hearing people, genetics, and technology assessment. The group visited the site to explore teaching methods and technological resources for Deaf adult learners.

## **FINDINGS**

The findings of this capacity study are presented in two parts. The first part describes the participants' (practitioners, managers and co-ordinators) responses in terms of program demographics, budget, technical capacity and skills of the practitioners and learners. It represents the data from the closed questions in the interview. The second part presents the practitioners', managers', learners' and key informants' responses to the open ended interview questions. Finally, some brief reflections on the site visit to Gallaudet University are shared.

### **PART ONE: CLOSED QUESTIONS**

#### ***Demographics***

The participants (managers, coordinators and practitioners) represented 93% of the Deaf literacy programs in Ontario. The types of services offered were predominantly Literacy and Basic Skills (LBS) training. In addition, a few agencies provided language instruction for newcomers to Canada, a family program and employment counseling to compliment the LBS training. The average number of LBS learners registered per year across all 14 programs was 30 (MTCU, 2010). Interview participants reported a range from six to 27 individuals actively participating in the programs at any

one time. The average learner was 33 years old and the range of student age was 16 to 65+ years (MTCU, 2010).

Although all programs reported limited resources in terms of the Literacy and Basic Skills service they provide, the Deaf practitioners in the North believe that their learners are the most under-served, having the least number of practitioners and having only one American Sign Language (ASL) interpreter for this large catchment area. The interviewees reported that the ratio of learners to practitioners is 25 to 1 in the area of North Bay, Sudbury and Timmins and is 17 to 0.8 in Northwestern Ontario. In addition, the Northern practitioners and managers reported that there is limited access to ASL interpreters dedicated to LBS services, with only one interpreter available from Thunder Bay to the Ontario/Manitoba border.

The report, *Recommendations Submitted to Management (Eastern Region) Related to the Relocation of the LBS Program for the Ottawa Deaf Adults* (June, 2009) argued that in Eastern Ontario, Deaf LBS services were limited to the city of Ottawa and that there were no Deaf LBS services in other communities such as Belleville, Kingston, Peterborough and Pembroke. A recommendation of that report was to undertake a study “to determine the training needs of Deaf adults in Ottawa (higher LBS levels 4-5) and the Eastern Region (all LBS levels) leading to academic upgrading for further training such as post-secondary studies, apprenticeship” (p. 9). For more information about the need for expanded LBS services for the Deaf, please see the Deaf Literacy Initiative, *Ontario adult literacy curriculum: Report on program and service deliver gaps* (2010b).

Most of the learners in the Deaf Literacy and Basic Skills programs function at a LBS level 1 or 2. Two of the programs have individual learners that are pre-LBS and the programs that are within post-secondary institutions, George Brown College and Mohawk College, have students in the higher LBS levels, primarily level 3 with a few people in level 4. Practitioner and manager participants did not identify any learners in their programs that were functioning at level 5. However, one participant reported knowing of a number of learners that might be assessed as benefiting from LBS level 5 training. These individuals were not able to travel to the post-secondary programs where instruction might be available to them.

The length of time a learner remains in a program varies from 1 to 10 years depending on program focus, and the learner’s LBS level. There are a variety of reasons for learners remaining in the programs for extended periods of time. For instance, in Northern Ontario, there is limited capacity to move onto higher LBS training as the practitioners lack learning and training opportunities to develop such instruction. In addition, managers and practitioners reported that students remain in LBS programs because of low

self-esteem and the need to socialize with other Deaf people. Systemic issues such as chronic unemployment also affect learners' length of stay in programs.

All practitioners are involved in direct delivery of instruction with some programs dividing a practitioner's time between practice and coordination of the program. Participants from five programs reported using volunteers, primarily to assist in training. As stated previously, ASL interpreters are very scarce with multiple communities in the north sharing the services of one interpreter. Most of the teaching occurs in classroom or small group settings. The Deaf literacy programs also provide 1:1 learning opportunities. Only one program stated they provided part-time distance learning. Participants reported that 11 practitioners are Deaf, 3 practitioners are hard of hearing and 4 are hearing individuals.

### ***Budget***

A formal budgeting process for computer hardware, software, upgrading maintenance and repairs varies across the programs. Practitioner input into the technology budgeting process is for the most part informal and at the discretion of management. Participants were unsure about funding for maintenance, upgrading and technical support should they require it. Training or upgrading in the use of the technology and software is most often part of the overall professional development budget, which in some cases is very limited. However, as a result of the Ontario Government's recent commitment to the development of an e-Channel for the Deaf, funding has been provided to purchase SMART Boards for each of the Deaf literacy agencies. In addition, an Information Technology (IT) staff from the Deaf Literacy Initiative will be providing face-to-face support on how to use the technology to best advantage.

### ***Technical Capacity and Skills***

All programs have access to unlimited high speed broadband. The participants reported that their learners have easy access to information and communication technology (ICT) in the classroom. They also report that on average 75% of the learners have access to computers at home and recently learners have been adopting mobile technology. This suggests that Deaf learners' access to ICT approaches the Canadian population norm (Statistics Canada, 2010). It should be noted however, that access to ICT does not necessarily mean that a person is proficient in its use.

Practitioners and managers were asked about the level of their computer and internet skills and also that of their students. The participants chose from three broad levels of skill: beginner, just learning how to do this;

intermediate, comfortable with routine tasks; proficient, can teach others. The majority of managers rated themselves as beginner to intermediate and the majority of practitioners rated themselves as intermediate to proficient. The practitioners also highlighted that they were unfamiliar with some of the newer technology that they had recently received, i.e. SMART Boards. Managers employed ICT for administrative tasks and practitioners used ICT for teaching, developing curriculum, researching teaching activities and communicating with learners.

Practitioners viewed their learners' computer and internet skills on a continuum from beginner to proficient depending on the students' comfort level with the technology and the software or internet application. Learners' aptitude with ICT also depended on whether the application relied primarily on text or visual media. The students appeared to be more adept with recent social media applications. The learners were also asked to rate themselves on their ICT skills. Three learners rated themselves as proficient, three rated themselves as intermediate and two stated that they were beginners. The applications that they reported the most comfort with were Facebook, Myspace, YouTube and instant messaging. Learners acquired these skills mostly through peer-to-peer learning or by experimenting and teaching themselves. One literacy agency reported that they offer orientation to online resources to students at the beginning of the year.

## PART TWO: OPEN QUESTIONS

Aside from opportunities to add comments to the closed questions, the interview included four open questions. The questions were:

- What do you think the e-Channel for the Deaf should be?
- What skills do you have to help e-Channel for the Deaf be successful?
- What are the challenges?
- Is there anything you would like to add?

The key informants interviewed for this study were also asked these questions and their responses are woven into the themes that emerged from this part of the questionnaire. Five themes emerged from the questions were:

- Organizational requirements
- Technology requirements
- Social/cultural requirements,
- The needs of the Deafblind
- Enthusiasm for the initiative

Participant responses that illustrate the particular capacity issue are quoted.

## **Organizational Requirements Theme**

There are four main issues within the Organizational Requirements theme: practitioner professional development, financial and human resource consideration, network development, and inclusivity.

**Practitioner professional development.** The first and by far the most important issue for the Deaf literacy community is the need for practitioner professional development/training. Although they are involved in adult education, practitioners in Deaf LBS programs have little educational background in how to facilitate adult learning compared to educators from Native, Francophone and Anglophone streams. They also face a number of challenges such as teaching in two languages and providing training in nine Essential Skills. They need to incorporate adult, learner-centred, goal directed learning into programs for Deaf individuals for whom English is a second language. There is no formal standardized training for Deaf literacy practitioners in terms of teaching or adult education. Some practitioners have taken courses in teaching English as a Second Language (ESL); however this does not adequately address the competencies required for teaching literacy skills to the Deaf not to mention facilitating this learning in an online environment. There are also no formalized standards in terms of practitioner proficiency in ASL or English. This is not a criticism of the practitioners; it is more of a statement of a need for professional development and clear competencies for these front line adult literacy workers.

“Most important capacity issue is to develop the skills of the practitioners. They come from a variety of backgrounds and they have either good ASL skills or good English skills, not both. This career doesn’t often attract people with teacher training or adult education training so that most of what the practitioners know is what they have learned on the job.”

The practitioners are also challenged by the complex needs of the learners. Deaf literacy learners are a marginalized group in our society. They frequently lack confidence to communicate in ASL or in English. They lack self-esteem to advocate for themselves in mainstream society and often find themselves excluded from training and employment opportunities (Deaf Literacy Initiative, 2010b). Deaf literacy learners may also have other simultaneous challenges, such as impaired vision, attention deficit disorders, physical and mental disabilities. These learners not only have to deal with these challenges,

they are also susceptible to external obstacles such as limited employability in a hearing work environment. Practitioners working with Deaf literacy learners may be faced with not only teaching literacy skills, but also facilitating personal growth and development.

Connected to this capacity issue is the need to develop a consistent toolkit of ASL and English assessment procedures that would meet the language and learning goals of a wide range of Deaf learners at all levels of proficiency in both ASL and English. In conjunction with this, practitioners will need to develop consistent lesson planning skills and teaching materials. The importance of developing this type of initiative was highlighted recently by the Deaf Literacy Initiative's *American Sign Language Linguistic Assessment Tool Feasibility Project*. The *ASL Feasibility Study Report* (2010a) reported that valid, reliable assessment tools were not in place among the Literacy and Basic Skills programs and that practitioners were inconsistent in rating learners' linguistic competencies.

It would be difficult for the various programs to develop a preliminary online literacy curriculum if they are not using consistent assessment language, protocols and approach to lesson planning. The Deaf/Deafblind Committee in the Toronto area has been involved in developing a model to address these competencies within their network and it would be very important to work on this type of skill upgrading in rest of the agencies. Work undertaken through the development of the Ontario Adult Literacy Curriculum to improve quality and consistency of instruction in literacy programming across all literacy streams may also assist in the development of standardized assessment tools.

**Financial and human resource consideration.** Another professional development related issue is the time investment and financial resources required for the practitioners to participate in upgrading their skills and in acquiring new e-learning competencies. Deaf literacy agencies are already short-staffed and practitioners questioned how they would find the time to participate in professional development. In addition, managers questioned where they might find the funding and the personnel to replace staff who were involved in upgrading their knowledge and skills.

“Recognize that the development of an e-channel will require a steep learning curve and question where staff will find the time to participate in the learning given their already busy teaching load. Will direct teaching time decrease? Does this mean that funding will be decreased? Will waiting list have to increase? Who will teach and provide the practitioners with support while they learn this new way of teaching.”

**Network development.** Another organizational need identified through the open-ended questions was the development of a stronger network amongst the literacy agencies. Many respondents suggested that the development of an e-Channel for the Deaf would be beneficial for increased sharing of resources, training modules and overall professional development.

“It would be great to work with other practitioners from various Deaf LBS programs to really enrich the quality of our lesson planning and delivery. We could use the resources of each other in order to better teach our learners - XX from GBC can teach his ASL lessons online. YY is really adept at computers so he could do a few lessons to reach a large number of people in the community. E-channel is a perfect venue to bring us all together and hone in on our particular skills to share with Deaf learners everywhere.”

Participants also suggested that the literacy agencies could perhaps share some of the teaching. So, if one agency had developed a particular lesson plan that could be helpful to learners across Ontario, that module could be accessed by any practitioner or student.

“Another vision that I have for this project is to be able to work closely with other practitioners and share a schedule around delivering lessons. I think it is a win-win situation all around. We may have to set up a schedule about who’s going to be doing what and when. For example, one program may deliver a lesson on anger management, and another might discuss recent events in the Deaf community... All interested learners from various programs, including those at home, will be able to tune in to their preferred lesson and get the same information at the same time.”

This would necessitate the development of a strong, coordinated practitioner network across agencies, which is based on trust.

**Inclusivity.** A fourth element in the theme of organizational requirements is an all-inclusive orientation, a call for recognition that learners are not all the same and that they vary widely in terms of their literacy levels and complex other needs. Participants emphasized that whatever is developed in terms of an e-Channel that it is inclusive of a variety of learner needs.

“I think we need to be aware of accessibility for everyone and ensure all Deaf learners can benefit from e-channel, including Deafblind individuals and those with other physical, mental, and emotional compromises as well.”

### ***Technological Requirements Theme***

The theme technology requirements can also be broken down into a number of issues, specifically importance of visual communication, specific technical features and technological support.

**Importance of visual communication.** The first and most frequently emphasized technological requirement speaks to the unique way that Deaf individuals perceive and understand their environment. Deaf culture is a visual culture and language and communication are inseparable from this identity (Enns, 2006). For the majority of Deaf people in Ontario, some form of ASL is the first language that they learn. Many learners coming to literacy agencies need ASL literacy training before they can take on English literacy. The medium of instruction for an e-Channel for the Deaf would therefore have to be visual and reliant on some form of video application. All participants are in agreement on this issue.

“In my eight years of experience with XXX, I have always maintained that Deaf learners require a visual means of learning, which often requires up-to-date technology and visual resources.”

Since visual media will be of such importance for creating curriculum for the lower LBS levels, simple adaptation of materials already developed for the other literacy e-Channel streams will be of limited value.

**Specific technical features.** The participants were very generous with their suggestions for technical features such as

“High speed, high quality video. It would have to be very clear and fast for the ASL to be properly received and delivered between viewers”

“Something that might be neat is having a screen divided into quarters to display four individuals from outside the classroom at once. When I am teaching in the classroom, I would know when someone is trying to get my attention when their quarter of the screen flashes, or makes some other kind of indicative signal, and lets me know they have something to add. I can see that kind of technology emerging in five years, but I am not so sure about what is out there now.”

“A clear, large image that delivers information at a comfortable pace would be ideal. A simple layout to display both video and text in a clear & easy-to-navigate viewing panel.”

“A switchboard of information detailing who is watching and a camera on the learner at home so they can fully participate in the classroom experience.”

**Technological support.** Technological support was another issue that was frequently mentioned by the participants. Technology can be a great addition to any learning environment but only when it works. Participants were concerned that there would not be adequate tech support to provide services to the distant learner.

“Troubleshooting. E-Channel is a great concept when it is working properly, but what if a learner at home has trouble accessing a website or tuning in to the lesson one day? Some kind of web assistance would be beneficial in cases like that.”

The Deaf Literacy Initiative plans to provide IT support for the Deaf LBS programs, particularly in terms of new technology. Although this is a welcome and much needed resource, additional support and training will be required to successfully adopt an e-Channel for the Deaf

## ***Social/Cultural Requirements***

The next theme that emerged was the participants concern about the social and cultural requirement of the learners. All participants were clear that they did not see an e-Channel for the Deaf as the sole means of delivering literacy training. They reinforced that face-to-face learning was important for students and practitioners as a way of socializing; decreasing the feelings of isolation many Deaf people experience and as a means of generating and transmitting Deaf culture (Marschark & Spencer, 2003).

“I think the concept of e-channel is wonderful, but ultimately I feel there would be a great human disconnect from the classroom environment because the at-home learners would still not fully be participating in a physically social interaction. Another challenge might be ensuring that we are meeting the Deaf E-learners’ cultural needs.”

This might be less of a problem with extensive use of visual media. In addition, the perceived difficulty in forming online relationships has received a lot of research attention over the past ten years with numerous studies, especially ones that address marginalized groups, suggesting ways of overcoming the limited cues of an online environment (e.g. Bargh & McKenna, 2004; Matzat, 2010; Preece, 2002; Radin, 2006;).

## ***Needs of the Deafblind***

Although a minority of the interviewees came from agencies that served the Deafblind population, they made a strong plea for this group to be given special consideration. Their organizational and technological needs are unique and the participants felt that this group is often passed over because their numbers are small and their condition complex.

“Please don't forget the Deafblind community. Deafblind individuals are underrepresented and are the most neglected members of any disability group. If accommodations are made for easy access to Deafblind individuals, those materials and resources will be accessible to all members of the Deaf community.”

## ***Enthusiasm***

All the participants in the capacity study were enthusiastic about the development of an e-Channel for the Deaf. Even those who believed that face-to-face learning was far superior to online learning stated that it would be of benefit for supplemental work and for those in isolated communities. The community as whole is looking forward to exploring this new learning environment.

“Go for it! I am looking forward to the advancements of technology and how we can use it to our advantage.”

“We need to seize the day and take advantage of each others’ strengths as practitioners. Here we are talking about something happening – we all need to be involved in these crucial beginning processes to ensure this gets off the ground.”

## **GALLAUDET UNIVERSITY**

The group that made the visit to Gallaudet University was impressed by the level international programs and services, the strong emphasis, both in teaching and research, on visual language and leaning and the technological resources and support available for students. The English Language Institute at Gallaudet has a strong emphasis on Manipulative Visual Language, a technique to help “crack the code of English” (<http://www.green-bridge.org/>). They also use a BI-Bi approach (2 teachers teach together – one for ASL and one for English) where a strong native signer (ASL), uses ASL to reinforce concept of English i.e. uses story ‘Curious George’ and breaks down all the ‘parts of speech’, isolates them, then discusses them through ASL, then puts it back into the story to improve reading skills.

For their E-Learning Program, Gallaudet employs Blackboard and the ‘ECHO 360’ software program ((similar to webcast/podcast at a cost: over \$100,000]. Students book a time to use the studio (<http://acadtech.gallaudet.edu/echo360studio.xml>). The student stands in front of the camera and signs their ‘presentation’ (class assignment) at the same time, their PowerPoint presentation is captured and then both the ASL presentation and PP is sent to a link (blackboard) at a scheduled time and then the teacher is able to view it.

The group also explored Visual Language and Visual Learning (VL2). VL2 is a research project to study how language and literacy develop in Deaf people. Program focuses primarily on language acquisition in children, but may have some application to adult learners.

The group felt that Gallaudet University could potentially be a resource for practitioner professional development and technology consultation. Jimmy Challis Gore (Lead ESL Trainer) provides workshops – ‘Train the Trainer’. He has delivered these workshops in Ontario in the past and could be approached to deliver these workshops to the practitioners. There are other programs that Gallaudet offers, for example, Introduction to Translation. Introduction to the Structure of ASL and Burstein Leadership Institute: Enhancing the Deaf Education: Language Planning and Leadership. It might be advantageous for the Deaf literacy community to investigate a partnership with this institution and perhaps with the Rochester Institute of Technology.

## **DISCUSSION**

This section of the report will discuss the findings through a strengths, weaknesses, opportunities and threats (SWOT) framework.

### ***Strengths***

The Deaf literacy community has a number of strengths that have sustained their work over the years and that will contribute to the development of an e-Channel for the Deaf. It is hard to ignore the passion that the Deaf literacy agencies and practitioners bring to their chosen work. There is a strong commitment to improve the service that they provide to the Deaf community and there is an equally strong investment in building and maintaining a Deaf culture.

The findings point to two main strengths that will prove very useful in the development of an e-Channel for the Deaf. First there is the obvious enthusiasm for the project. Even the interviewees who had little experience with technology could see its benefits for supplementing lesson activity within existing LBS classrooms and for reaching out to isolated individuals. In addition, the overall Deaf community has embraced the Internet and its communication benefits and they have adapted it to support the Deaf culture (Rochester Institute of Technology, 2010)

Second, all of the literacy programs have high speed broadband with unlimited usage and have recently received new hardware and software. The

interviews also showed that the majority of managers, practitioners and students rated themselves as having intermediate competencies with computers and internet applications. They also reported using computers and the internet to support their work and according to the students their social life as well. Although it has been shown that people frequently over estimate their computer and information literacy (Selwyn, 2003), the findings show that the majority of the users of the proposed e-Channel for the Deaf have already made the jump to cyberspace.

The enthusiasm and online experience of the Deaf literacy community is a strength that can be leveraged for successful adoption of an e-Channel for the Deaf. Olaniran (2009) contends that a culture's learning style determines the acceptance and incorporation of internet tools in learning contexts. A key organizational factor affecting the success of technology adoption is the technological capabilities of an organization's members (Del Aguila-Obra & Padilla-Meléndez, 2006). The Deaf community has embraced internet technology and should be successful in adopting an e-Channel for the Deaf as long as the visual nature of its culture is recognized and supported (see Appendix C for some examples of online Deaf resources).

### ***Weaknesses***

Although the people who work with Deaf literacy learners are passionate about their work and have experience with online resources, they also have a great need for professional development and upgrading. There is inconsistency amongst the practitioners in terms of their own literacy competencies and in terms of their teaching skills. Practitioners do not have any formalized training and depend on mentorship, yearly conferences and limited professional development activities to improve the quality of their teaching.

Partly as a result of the varying levels of proficiency in practitioner skills and inconsistency in experience, a literacy assessment toolkit has yet to be developed. A group of agencies, the Deaf/Deafblind Committee (DDBC) in Toronto, have made progress in this area; however this fundamental piece of instructional planning is not evident across all agencies. Practitioner professional upgrading and the development of a reliable toolkit of ASL and English assessment procedures that meet the learning goals of a wide range of Deaf learners are two weaknesses that must be addressed either before or in conjunction with the development of an e-Channel for the Deaf. These challenges are not new and have been reported in the past. (Deaf Literacy Initiative, 2010a; Deaf Literacy Initiative, 2010b; Porter & Sturm, 2006)

The practitioners will also need professional development in terms of online andragogy. It is not enough to just transfer what has been taught in a face-

to-face context to an online environment (Brennan, 2003). There are principles and best practice for online instruction and these will need to be adapted to the needs and culture of the Deaf literacy community. In the same vein, content for the online modules will need to be developed by the practitioners. This will necessitate training in a learning management system. A number of practitioners have begun training in Moodle, an open source learning management system, and have found this system to be compatible with their needs (see Appendix D).

### ***Opportunities***

The major opportunity is to develop a successful online learning environment for both Deaf literacy practitioners and for the Deaf literacy learners. This online environment could include forums for professional development, online communities of practice, social spaces and home pages for learners, events listings, etc. The Deaf literacy community has an opportunity to finally address some of the capacity issues that have plagued their service delivery. They have the opportunity to address gaps in their present professional development and organizational requirements while at the same time taking a lead in developing innovative online instructional and social networking services for the Deaf.

MTCU and the Deaf literacy community have an opportunity to support a groundbreaking literacy project that may have implications for other Deaf literacy initiatives in Canada and internationally. Thorough documentation and evaluation may lead to original research in online andragogy and literacy education, especially with regard to the Deaf population. All of this, of course, comes at a price, which leads us to the threats inherent in this capacity analysis.

### ***Threats***

The successful delivery of training for literacy challenged learners in Ontario is dependent on the professional development of the literacy practitioners. As one of the key informants stated,

“If the practitioners don’t get it the students  
certainly won’t.”

The practitioners’ skills require upgrading in assessment and teaching and they will require training in various applications of ICT and in online andragogy. The practitioners are going to experience a steep learning curve

that will require time and support as they successfully incorporate these new skills. They cannot be expected to fulfill all their present responsibilities and learn these competencies as well. Funding needs to be considered not only for professional development but also for replacement practitioners.

It has been suggested that in order for technology adoption to be successful one must address many factors in an organization including practice issues as well as organizational training issues. Outside of capital expenses, which typically only account for 16% of the cost of an ICT project, training remains a high cost item and cannot be a one-time expenditure if the organization is serious about successfully adopting a complex transformational technology initiative. It is interesting to note that several substantial IT projects, both government supported and commercial, have failed, in part due to inadequate consideration of the nature of existing practices and social processes embedded within the organization involved in the transition (Garcia, Dawes, Kohne, Miller, Groschwitz, 2006).

### **RECOMMENDATIONS<sup>3</sup>**

“It is time to consider the reality of Deaf people’s experience and perspective of the world when determining instructional programs for Deaf [children]. It is time to include Deaf people as active participants in research, in both forming the questions and providing the answers.”(Enns, 2006, p.93)

The recommendations of this report address capacity issues and the development of an e-Channel for the Deaf. Both the capacity issues and the development of the e-Channel have financial implications, the extent of which would need further investigation. It should be noted that the Accessibility for Ontarians with Disabilities Act (AODA), pending legislation, makes it imperative that literacy learning, which is available to other literacy streams (Anglophone, Francophone and Native) be made available to Deaf and Deafblind learners. Access for Deaf and Deafblind students will require adaptive technology and resources and practitioner professional development for literacy learning to be successful.

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<sup>3</sup> Appendix E presents the recommendations in a three year timeline

## **E-CHANNEL FOR THE DEAF**

- E.1 An e-Channel for the Deaf Advisory Committee is established to lead the development of the e-Channel for the Deaf
- E.2 The advisory committee is composed of a MTCU Literacy Consultant, a representative of the Deaf literacy Initiative, a Deaf literacy program manager, two practitioners, the Professional Development Specialist, an online literacy education consultant and a technology consultant. Other participants may be invited as their expertise is needed.
- E.3 In choosing consultants, preference is given to Deaf individuals who have experience working with the Deaf community
- E.4 The goals of the e-Channel for the Deaf are multipurpose, sensitive to Deaf culture and employed for socialization, community building, e-learning and professional development.
- E.5 The e-Channel for the Deaf incorporates video applications in all its online environments
- E.6 The e-Channel for the Deaf Advisory Committee investigates agencies interested in a partnership to deliver the e-Channel for the Deaf
- E.7 The e-Channel for the Deaf Advisory Committee investigates learning management systems that would support the purpose of the e-Channel for the Deaf
- E.8 Deaf literacy practitioners are actively involved in all stages of the technology/platform development process and in content development.
- E.9 After choosing a partner organization to host the e-Channel for the Deaf and choosing a learning management system, the Advisory Committee develops a long range plan for the e-Channel for the Deaf and for the creation of educational content
- E.10 A substantial amount of time is required to initially set up the online environment and train the practitioners. Staffing needs of LBS agencies are taken into account as practitioners develop their online pedagogy skills and content.
- E.11 The first 'users' of the e-Channel are the practitioners

- E.12 The ongoing development of the e-Channel for the Deaf is monitored closely so that the progress of the project does not run ahead of the practitioners' skills.
- E.13 Curriculum content is developed with input from a variety of practitioners who work with a wide range of Deaf literacy learners.
- E.14 The e-Channel for the Deaf Advisory Committee selects three to four of Deaf LBS programs to pilot the online literacy learning environments before moving the e-Channel forward to other agencies
- E.15 The project is well documented so that Deaf literacy communities elsewhere can learn from the project.
- E.16 A case study of the initial pilot is developed
- E.17 The e-Channel for the Deaf Advisory Committee, after evaluating the pilot cases, develops a plan for involving other Ontario Deaf literacy programs.
- E.18 All subsequent e-Channel for the Deaf programs are monitored with formative evaluations for continuous improvement and for specific context requirements.

Dissemination of findings from this initiative are shared with academic, non-academic and Deaf audiences through conferences, articles, mainstream publications and online venues.

## **CAPACITY**

- C.1 Establish a Capacity Working Group to develop and coordinate a long term professional Education plan for practitioner literacy and teaching skills across the province.
- C.2 The Capacity Working Group is made up of a MTCU Literacy Consultant, a representative of the Deaf Literacy Initiative, a Deaf literacy program manager, three practitioners (urban, rural, Deafblind) and a Professional Development Specialist.
- C.3 Hire a full-time Professional Development Specialist to execute the plans of the Capacity Working Group. This person should be hired through the Deaf Literacy Initiative and would ideally be Deaf and familiar with the needs of this community.

- C.4 The Professional Development Specialist, in cooperation with the Capacity Working Group, the Deaf literacy managers and practitioners, develops and carries out an assessment to identify practitioners' common ASL language training needs, common English language training needs and common adult education and e-Channel training needs.
- C.5 Communities of practice for Deaf literacy practitioners are established in both face-to-face and online environments
- C.6 Investigate partnerships with Gallaudet University and Rochester Institute of Technology.
- C.7 The Capacity Working Group develops a multi-year plan for practitioner professional upgrading taking into consideration practitioner needs, human resource and financial requirements and local literacy service plans.
- C.8 The Capacity Working Group, with the aid of the Professional Development Specialist develops a formative evaluation to be carried out at specified intervals during the multi-year professional upgrading project.
- C.9 The professional development plan takes into consideration lessons learned from the formative evaluations and adjusts its goals as necessary
- C.10 The formative evaluation assists in the development of a number of research case studies.
- C.11 Evaluation and research findings are disseminated at academic and practitioner workshops and conferences and published in mainstream and online venues.
- C. 12 The Capacity Working Group develops standard competencies for Deaf literacy practitioners
- C. 13 A formal educational program is developed for Deaf literacy practitioners.

## **ASL AND ENGLISH ASSESSMENT PROCEDURES**

- A.1 Working with the Ontario Adult Literacy Curriculum Project, the Capacity Working Group and the Deaf/Deafblind Committee in Toronto, the Professional Development Specialist develops a toolkit of ASL and English assessment procedures that meet the language needs and learning goals of a wide range of Deaf literacy learners.
- A.2 The toolkit of ASL and English assessment procedures is piloted and evaluated at a number of LBS programs across the province.
- A.3 Based on the evaluation findings, the ASL and English assessment procedures are refined and other LBS program sites are invited to employ the assessments and evaluate them in their specific contexts.
- A.4 The process of developing these assessment procedures is documented and presented to various academic and practitioner workshops and conferences.
- A.5 A set of ASL and English language assessment procedures are adopted across the province.

The gaps in Literacy and Basic Skills services, the capacity issues of the Deaf literacy practitioners and the lack of consistent ASL and English language assessment procedures have been pointed out in previous reports. The potential development of an e-Channel for the Deaf reinforces the need for these issues to be addressed in a systematic manner. Deaf and Deafblind literacy learners are a distinct and marginalized group and they require substantial resources in order to be included as full participants in Ontario society. A partnership between the Ministry of Training Colleges and Universities and the Deaf literacy community provides an opportunity to address these gaps and capacity issues as well as to create a unique online environment that would improve the quality of life for these individuals.

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## APPENDIX A: GLOSSARY OF TERMS

**Adult Education:** is the field of study and practice devoted to facilitating learning in adults.

**AlphaPlus:** is a provincially-funded organization, located in Toronto that provides expertise to support adult educators. We do this through disseminating research, information and training to adult educators on innovative learning technologies - what technologies to use, how to use them, and when to use them. Our work informs practitioners, literacy organizations and agencies on tools and best practices, which results in more effective training of adult learners. AlphaPlus provides services to organizations throughout Ontario

**Alpha Route:** Managed by AlphaPlus, Alpha Route is an adult literacy online learning environment developed for the Deaf, Native, Francophone, and Anglophone streams of the Literacy and Basic Skills (LBS) program, the publicly funded Adult Basic Education (ABE) program of the province of Ontario, Canada.

**American Sign Language (ASL):** American Sign Language (ASL) is the 3rd most recognized language in North America. ASL contains phonology, morphology, semantics, syntax and pragmatics and is proved to be a natural language by the linguistic community. It is a manual or visual language, meaning that the information is expressed not with combinations of sounds but with combinations of hand shapes, palm orientations, movements of the hands, arms and body, location in relation to the body, and facial expressions.

**Andragogy:** an educational approach characterized by learner-centredness (i.e., the student's needs and wants are central to the process of teaching), self-directed learning (i.e., students are responsible for and involved in their learning to a much greater degree than traditional education), and a humanist philosophy (i.e., personal development is the key focus of education). Related concepts include: facilitated learning, self-directed learning, humanism, critical thinking, experiential learning, and transformational learning

**Atlas.ti software:** is a computer software application for qualitative data management and analysis. It is used by researchers in a wide variety of fields and has the capacity to handle multimedia data.

**Bob Rumball Centre for the Deaf:** is a multi-purpose, multi-program facility that functions both as a community centre for the Deaf, and as a provider of services to the Deaf.

**Capacity Assessment:** For this report capacity assessment refers to the Deaf literacy community's capacity to deliver all levels of Literacy and Basic Skills and their capacity to contribute to the development of an e-Channel for the Deaf

**Capacity Assessment Advisory Group:** Advisory group for the Ontario Deaf Literacy and e-Channel Capacity study. Group consists of representatives from The Deaf Literacy Initiative, George Brown College, The Canadian Hearing Society, Ministry of Training Colleges and Universities, AlphaPlus, a lead researcher, research assistants and ASL interpreters.

**Data Saturation:** Data saturation occurs when the researcher is no longer hearing or seeing new information.

**Deaf:** a pre-lingually deaf person is someone who is deaf at birth or became deaf in infancy before acquiring mastery of a spoken language. They will often have sign language as a first language, and may be part of the Deaf community. He or she may have learned some degree of speech communication, such as lip reading. A post-lingually deaf person is someone who became deafened after acquiring some mastery of spoken language. A Deaf person, (capitalized) may mean a person who identifies with Deaf culture.

**Deaf Culture:** describes the social beliefs, behaviors, art, literary traditions, history, values, and shared institutions of deaf people who use a sign language. When used in this cultural sense, the word *deaf* is often capitalized in writing, and referred to as "big D Deaf" in American Sign Language or spoken English. Culturally Deaf people tend to view deafness as a difference in human experience rather than a disability. People who are culturally Deaf (1) are audiologically deaf or hard of hearing, (2) use a sign language, and (3) identify themselves with the larger cultural group.

**Deaf/Deafblind Committee Toronto (DDBC):** Deaf/Deaf-Blind Committee consists of the WorkForce Literacy Program (The Canadian Hearing Society), Program for Deafblind Adults (The Canadian National Institute for the Blind), Adult Education Department (Bob Rumball Centre for the Deaf), Academic Upgrading Program for Deaf and Hard of Hearing Adults (George Brown College) and a Ministry of Training Colleges and Universities Field Consultant. The DDBC participates in the local planning and coordination of the Deaf/Deaf-Blind literacy services in the Greater Toronto Area (GTA).

**Deaf literacy community:** includes the managers, practitioners and learners involved in the 14 Literacy and Basic Skills programs in Ontario.

**Deaf Literacy Initiative (DLI):** is a provincial umbrella organization that provides accessible and culturally relevant training, research, networking and resources to the Deaf and Deafblind literacy community in Ontario.

**e-Channel:** an online classroom and meeting space for students, teachers, coaches, trainers and leaders of adult literacy and basic skills programs. This is a working definition that allows the Deaf literacy community to develop a contextual definition that will best describe the eventual online environment.

**English as a Second Language (ESL):** refers to the use or study of English by speakers with a different native language.

**Gallaudet University:** is the world leader in liberal education and career development for deaf and hard of hearing undergraduate students. The University enjoys an international reputation for the outstanding graduate programs it provides deaf, hard of hearing, and hearing students, as well as for the quality of the research it conducts on the history, language, culture, and other topics related to deaf people.

**George Brown College:** George Brown College is a leader in education and educational services for Deaf and hard-of-hearing people. This is the only college program of its kind in Toronto, with all courses taught in American Sign Language (ASL). The program is for those Deaf and hard-of-hearing students who want to upgrade their English, ASL, math and computer literacy skills for further education and/or employment. Each course is specifically geared to the needs and interests of Deaf and hard-of-hearing students.

**Hard of Hearing:** A person who is hard of hearing has some hearing loss but may be able to hear speech as well as speak. They may use ASL. They may also be able to use the telephone with technical support.

**Information technology (IT):** the use of computers, networks, software programming, and other equipment and processes to store, process, retrieve, transmit, and protect information.

**IT person:** someone who troubleshoots, provides maintenance and trains others in the use information technology

**Information and Communication Technology (ICT):** allow users to participate in a rapidly changing world in which most activities are increasingly transformed by access to varied and developing technologies.

**Learning management system (LMS):** is a software application for the administration, documentation, tracking, and reporting of training programs, classroom and online events, e-learning programs, and training content.

**Literacy and Basic Skills (LBS):** is a skills development program in communication and numeracy at a pre - high school level. Its purpose is to help adults attain their goals related to further training, employment, or independence.

**Literacy Service Plan (LSP):** identifies the ways that member agencies work together to create a seamless local literacy system through coordination of information and referral, literacy assessment, training plan development, training, evaluation and follow up.

**Mayfest:** is an annual cultural event in the Deaf community

**Mohawk College:** supports the Deaf Empowerment Program, which is an academic upgrading program for deaf adults and provides instruction in math, reading, writing, basic computer and employability skills.

**Moodle:** is a software package for producing Internet-based courses and web sites.

**National Technical Institute for the Deaf (NTID):** is the world's first and largest technological college for students who are deaf or hard of hearing. It is one of eight colleges of Rochester Institute of Technology (RIT), a privately endowed, coeducational university that is student centered and career focused.

**North (the):** refers to Northern Ontario and includes the geographic area north of Huntsville and Parry Sound, as well as, the areas north and northwest of Sudbury, Sault St. Marie and Thunder Bay.

**Ontario Adult Literacy Curriculum Project:** The Ministry of Training, Colleges and Universities (MTCU) and the provincial literacy organizations representing LBS delivery sectors and streams, as well as AlphaPlus Centre, have joined together to create the Ontario Adult Literacy Curriculum (OALC) for the Literacy and Basic Skills (LBS) Program. This project will provide

- Client with:
  - Clearer descriptions of the tasks they will need to perform for their chosen goal
  - The pathways available to them, based on what they have learned, so they can more easily transition from an independence goal to an employment goal, for example
  - Greater mobility between LBS programs anywhere in the province, for those clients re-locating for employment or further training
- LBS practitioners will have stronger support and guidance in assessment, instruction, and selecting and using resources
- EO service providers will better understand LBS services and how they might fit within their clients' service plans
- OALC will provide MTCU with learner progress measures for performance management

**Purposive sampling:** selecting participants based on the purpose of the study

**Rochester Institute of Technology:** is a nationally respected leader in professional and career-oriented education.

**Smartboard:** is an interactive whiteboard developed by SMART Technologies that is popular in education settings

**Snowball sampling:** asking a participant to suggest someone else who might be willing or appropriate for the study.

**SWOT:** is a strategic planning method used to evaluate the Strengths, Weaknesses, Opportunities and Threats involved in a project. It is particularly helpful in identifying areas for development.

**The Canadian Hearing Society:** not-for-profit agency and the leading provider of services, products, and information that remove barriers to communication, advance hearing health, and promote equity for people who are culturally Deaf, oral deaf, deafened and hard of hearing.

**The Canadian National Institute for the Blind:** Provides access to information for people who are deafblind through case management, counseling, referral, literacy programs, intervention services and assistive technology.

**Theoretical rationale:** an explanation for a behavior or activity that is based on some recognized theory

# Appendix B: Overall Questionnaire

## 1. Introduction

The Deaf Literacy Initiative, the Canadian Hearing Society and George Brown College, are undertaking a capacity and needs assessment of the Deaf LBS community. The purpose of the assessment is to develop recommendations for a dedicated Deaf stream E-Channel.

We are asking you to participate in this questionnaire so that your opinions and concerns are included in the development process. You will be asked some questions about your organization, the LBS practitioners and the learners that you serve. There will also be questions about your information and communication technology capacity at present and what you would like to develop in the future.

Your participation is entirely voluntary. Your answers will remain anonymous and all survey results will be grouped together for any future report or presentation. A draft version of the report will be circulated to participants for their review.

If you have any questions or concerns, please contact Dr. Sherida Ryan ([sherida@openflows.net](mailto:sherida@openflows.net)) or Peggy-Anne Gordon ([peggyanne@deafliteracy.ca](mailto:peggyanne@deafliteracy.ca))

Your yearly IMS stats will help you answer some of the questions

Please continue

# Appendix B: Overall Questionnaire

## 2. Demographics

**1. Name of organization**

**2. Where are you located**

**3. What services does your organization provide?**

**4. How many learners does your organization see per year?**

**5. What is the average age of these learners?**

**6. How many of your learners are in:**

LBS Level One	<input type="text"/>
LBS Level Two	<input type="text"/>
LBS Level Three	<input type="text"/>
LBS Level Four	<input type="text"/>
LBS Level Five	<input type="text"/>

**7. How long do learners usually stay in your program?**

# Appendix B: Overall Questionnaire

## 3. Your Organization

### 1. How many staff of the following types does your organization have?

Administration/Management	<input type="text"/>
Clerical/Support	<input type="text"/>
Practitioners	<input type="text"/>
Volunteers	<input type="text"/>

### 2. How many of your practitioners are

Deaf	<input type="text"/>
Hearing	<input type="text"/>
Hard of Hearing	<input type="text"/>
Deafened	<input type="text"/>
CI	<input type="text"/>

### 3. How do you provide teaching/training for your LBS clients (multiple answers allowed)?

	Full-time learning environment	Part-time learning environment
One-to-one individual tutoring	<input type="checkbox"/>	<input type="checkbox"/>
Small group instruction	<input type="checkbox"/>	<input type="checkbox"/>
Classroom instruction	<input type="checkbox"/>	<input type="checkbox"/>
Distance education (not Internet based)	<input type="checkbox"/>	<input type="checkbox"/>
Online education (asynchronous, live chat)	<input type="checkbox"/>	<input type="checkbox"/>
Blended learning (face-to-face, asynchronous, live chat)	<input type="checkbox"/>	<input type="checkbox"/>
Other (please specify)	<input type="text"/>	

### 4. Do you have a business plan when it comes to technology and technology training

- Yes
- No

Can you tell me about it

## Appendix B: Overall Questionnaire

### 5. Does your plan include:

	Yes (ask them to elaborate)	No	Don't know	Not Applicable
Hardware upgrades/replacement (newer computers, webcams)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Software upgrades/replacement (Windows 7 replacing Vista)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Multimedia equipment (smart boards digital camera equipment)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Technical support(offsite, onsite)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

# Appendix B: Overall Questionnaire

## 4. Organization & Use of Information and Communication Technology

### 1. What level of Internet connectivity does your organization have?

- High speed broadband - unlimited usage
- High speed broadband - limited usage
- Satellite
- Dial up
- Don't know
- Not applicable

Comment

### 2. What do you use computer resources (including the Internet) for (multiple answers allowed)?

- Administration/Management
- Clerical/Support
- Teaching/Training
- Professional Development
- Not Used

Other (please specify)

### 3. How do administrators/managers use computer resources (including the Internet) in your organization?

(e.g. email, data collection(stats), program development, research, long-term planning, communicating with learners, professional development, personal interests, etc.)

## Appendix B: Overall Questionnaire

**4. How do clerical or support staff (including volunteers) use computer resources (including the Internet)?**  
 (e.g. scheduling, making appointment, writing letters, communication with learners, professional development, personal interests, etc.)

**5. How do practioners use computer resources (including the Internet)?**  
 (e.g. teaching, developing curriculum, researching teaching activities, professional development, communicating with learners, personal interests, etc.)

**6. How do your students use computer-based resources (including the Internet)?**  
 (e.g. learning activities, practice activities, socializing, entertainment etc.)

**7. Please rate how supportive your board, management, employees, practioners, volunteers and clients are toward your program's use of computers and the Internet?**

	No support	Limited support	Supportive	Extremely supportive	Don't know	Not applicable
Board	<input type="radio"/>					
Management	<input type="radio"/>					
Employees	<input type="radio"/>					
Practioners	<input type="radio"/>					
Volunteers	<input type="radio"/>					
Students	<input type="radio"/>					

Comment

# Appendix B: Overall Questionnaire

## 5. Information and Communication Technology Skills

**1. Please rate your Administration/Management skills for the following information and communication based technology activities.**

**Beginners = just learning how to do this**

**Intermediate = comfortable with routine tasks**

**Proficient = can teach others how to work with the technology**

	Computer	Laptop	Webcam	LCD Projector	Smart Board	Office software	Email	Web search	Social network applications	Mobile applications	Games
Beginners	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>								
Intermediate	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>								
Proficient	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>								
Don't know	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>								
Not applicable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>								

Comment

**2. Please rate your Clerical/Support staff skills for the following information and communication based technology activities.**

**Beginners = just learning how to do this**

**Intermediate = comfortable with routine tasks**

**Proficient = can teach others how to work with the technology**

	Computer	Laptop	Webcam	LCD Projector	Smart Board	Office software	Email	Web search	Social network applications	Mobile applications	Games
Beginners	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>								
Intermediate	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>								
Proficient	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>								
Don't know	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>								
Not Applicable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>								

Comment

## Appendix B: Overall Questionnaire

3. Please rate your Volunteers' skills for the following information and communication based technology activities.

**Beginners = just learning how to do this**

**Intermediate = comfortable with routine tasks**

**Proficient = can teach others how to work with the technology**

	Computer	Laptop	Webcam	LCD Projector	Smart Board	Video Camera	Office software	Email	Web search (deaf sites)	Social network applications	Mobile applications	Games
Beginners	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>								
Intermediate	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>								
Proficient	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>								
Don't know	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>								
Not applicable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>								

Comment

# Appendix B: Overall Questionnaire

## 6. Information and Communication Technology Skills...cont'd

**1. Please rate your skills for the following information and communication based technology activities.**

**Beginners = just learning how to do this**

**Intermediate = comfortable with routine tasks**

**Proficient = can teach others how to work with the technology**

	Computer	Laptop	Webcam	LCD Projector	Smart Board	Video Camera	Office software	Email	Web search (deaf sites)	Social network applications	Mobile applications	Games
Beginners	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>								
Intermediate	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>								
Proficient	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>								
Don't know	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>								
Not applicable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>								

Comment

**2. Please rate your skills for the following Internet applications.**

**Beginners = just learning how to do this**

**Intermediate = comfortable with routine tasks**

**Proficient = can teach others how to work with the technology**

	Messaging (msn/tokbox/oovoo)	Facebook/MySpace	Youtube	Vlogs	VRI	Use of various Deaf wensites
Beginners	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Intermediate	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Proficient	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Don't know	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Not applicable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Other (please specify)

# Appendix B: Overall Questionnaire

## 7. Students

### 1. Do your students like to use computers?

Yes

No

Comment

### 2. How do your students learn to use computers

### 3. How do they learn to navigate the web?

### 4. Please rate your students' skills for the following information and communication based technology activities.

**Beginners = just learning how to do this**

**Intermediate = comfortable with routine tasks**

**Proficient = can teach others how to work with the technology**

	Computer	Laptop	Webcam	LCD Projector	Smart Board	Video Camera	Office software	Email	Web search (deaf sites)	Social network applications	Mobile applications	Games
Beginners	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>								
Intermediate	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>								
Proficient	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>								
Don't know	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>								
Not applicable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>								

Comments

## Appendix B: Overall Questionnaire

5. Please rate your students' skills for the following Internet applications.

**Beginners = just learning how to do this**

**Intermediate = comfortable with routine tasks**

**Proficient = can teach others how to work with the technology**

	Messaging (msn/tokbox/oovoo)	Facebook/MySpace	Youtube	Vlogs	VRI	Use of various Deaf websites	Use of English/numeracy sites
Beginners	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Intermediate	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Proficient	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Don't know	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Not applicable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Other (please specify)

6. How many computers do you have for student use and is there a wait time?

7. Do your students generally have access to a computer and Internet at home?

Yes

No

Comment

8. Do they have a cell phones, iphones, blackberrys

# Appendix B: Overall Questionnaire

## 8. Proposed Deaf E-Channel

**1. What do you think Deaf E-Channel should be**

**2. What skills do you have to help Deaf E-Channel be successful?**

**3. What are the challenges?**

**4. Is there anything you would like to add?**

**9. Thank you**

## **APPENDIX C: RESOURCES**

### **Deaf Related Websites (Agency, Organization, Services, Program)**

1. Deaf Literacy Initiative <http://www.deafliteracy.ca/>
2. The Canadian Hearing Society <http://www.chs.ca/>
3. Bob Rumball Centre for the Deaf <http://www.bobrumball.org/>
4. George Brown College <http://gbcdeaf.georgebrown.ca/>
5. CNIB – Literacy Program for Deafblind Adults <http://www.cnib.ca/>
6. Durham Deaf Services <http://www.durhamdeaf.org/>
7. Silent Voice Canada <http://www.silentvoice.ca/>
8. AlphaPlus Centre (Adult Resource Centre) <http://www.alphaplus.ca/>
9. Canadian Association of the Deaf <http://www.cad.ca/>
10. Ontario Association of the Deaf <http://www.deafontario.ca/>
11. The Ontario Cultural Society of the Deaf <http://www.ocsd.ca/>
12. Ontario Deaf Sports Association <http://ontariodeafsports.on.ca/>
13. DeafConnect (World Deaf Directory) <http://www.deafconnect.com/>
14. Deaf Culture Centre  
<http://www.deafculturecentre.ca/Public/index.aspx>
15. World Federation of the Deaf [www.wfdeaf.org](http://www.wfdeaf.org)

### **ASL Websites and Resources**

1. ASL Access <http://www.aslaccess.org/index.htm>
2. ASL Browser <http://commtechlab.msu.edu/sites/aslweb/index.html>
3. ASLPro.com <http://www.aslpro.com/>
4. ASL University <http://www.lifeprint.com/>
5. Dawn Sign Press <http://www.dawnsign.com/>
6. Handspeak <http://www.handspeak.com/>
7. Sign Media, Inc. <http://www.signmedia.com/>
8. Sign Enhancers <http://www.signenhancers.com/index.html>
9. Your Dictionary.com <http://www.yourdictionary.com/languages/sign.html>

## Useful Websites and Resources

1. My Gates.ca <http://www.mygates.ca/>
2. AWAL <http://www.awal.ca/>
3. WSIB <http://www.wsib.on.ca/wsib/wsibsite.nsf/public/homepage>
4. Ontario Skills Passport <http://www.osca.ca/osp/osp.htm>
5. Directory for Accessibility <http://www.accessibilitydirectory.ca/>
6. HRSDC  
[http://www.hrsdc.gc.ca/eng/workplaceskills/essential\\_skills/general/home.shtml](http://www.hrsdc.gc.ca/eng/workplaceskills/essential_skills/general/home.shtml)
7. Ministry of Training, Colleges and Universities <http://www.edu.gov.on.ca/>
8. National Adult Literacy Database <http://www.nald.ca/>
9. Metro Toronto Movement for Literacy <http://www.mtml.ca/>
10. Settlement.org <http://www.settlement.org/>
11. Gallaudet University <http://www.gallaudet.edu/>
12. National Technical Institute for the Deaf <http://www.ntid.rit.edu/>

Compiled by Pat Morano, The Canadian Hearing Society

## APPENDIX D: MOODLE APPLICATIONS

Moodle, an online course management system, is a free open-source community-based software package designed using sound pedagogical principles to help educators create effective online learning resources and communities. AlphaPlus has been using Moodle for distance training since 2007 and currently offers an 8-week training called *Introduction to Moodle* and a 10-week training called *Build and Deliver a Short Moodle Course*. To date 1 Deaf educator from the Bob Rumball Centre for the Deaf (BRCD) and 6 Deaf/blind educators from CNIB Literacy Programs have received Moodle training from AlphaPlus. Three educators from BRCD are registered for Moodle training in the Fall of 2010.

### **Christine Nelson**

Christine Nelson from the Bob Rumball Centre for the Deaf has taken both levels of Moodle training that AlphaPlus offers. As part of the requirements of the second Moodle training taken, Christine developed and delivered a short 3-week online course called *Introduction to Basic Budgeting*. Six students took the course and provided evaluation feedback. Christine has encouraged three of her staff to register for the *Introduction to Moodle* training offered by AlphaPlus starting in September 2010. Christine's course sits on the Virtual Classroom for Adult Learners site at: <http://echannel.alphaplus.ca>

### **Lee Garrett**

Lee Garrett from the CNIB Literacy Program in Hamilton has taken both levels of Moodle training offered by AlphaPlus. AlphaPlus hosts a Moodle site for CNIB Literacy and that site was designed by Lee. Lee used curriculum content developed for the Deaf/blind Adult Literacy Curriculum Project to create and deliver a three-week course on the CNIB Moodle site to six students and staff. The course is called *Personal Wellness: Suitable for JAWS, Zoom Text Users*. This was a pilot effort of both the Moodle site as well as the course. Lee plans to continue to translate the project curriculum content into Moodle courses into September 2010. Lee's course sits on the *CNIB Literacy Program Virtual Classroom – Link in to Learning With Us!* site at: <http://cnib.alphaplus.ca> in the Health & Well Being area.

### **Judith Julien**

Judith Julien from the CNIB Literacy Program in Toronto completed the first level of Moodle training offered by AlphaPlus and is currently taking the next level of training. During the first training Judith developed and delivered a short course called *Finger Talk* to Deaf/blind students in her literacy class. Continuing from there into her current Moodle training, Judith is developing a *Core Skills* course in Moodle that covers eight topics her students are working on face-to-face and online. Judith's courses sit on the *CNIB Literacy Program Virtual Classroom – Link in to Learning With Us!* site at: <http://cnib.alphaplus.ca> in the Just the "Basics" area.

### **Jessica Cano-Jáuregui**

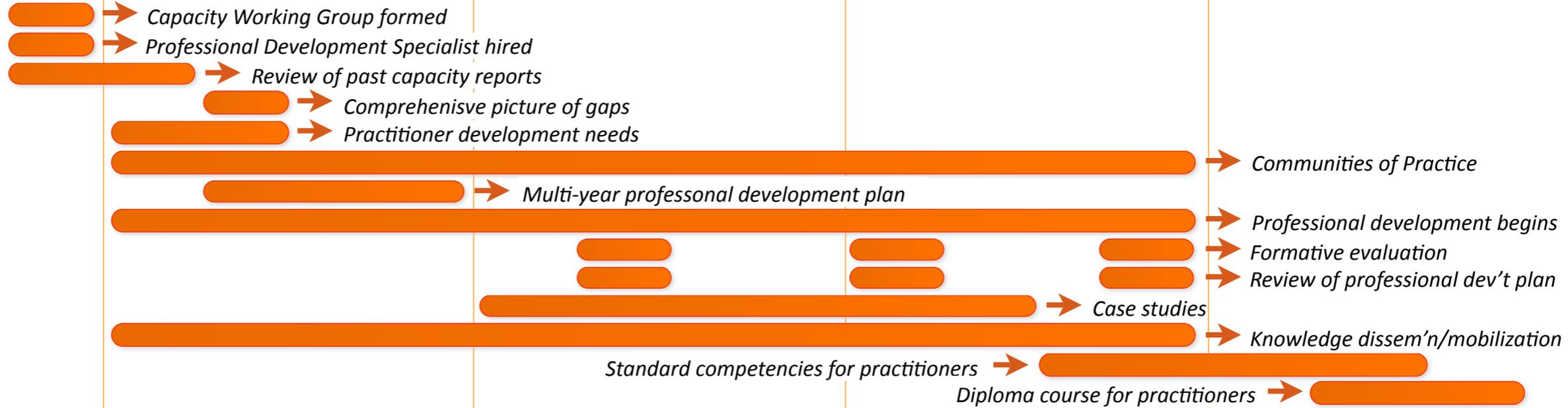
Jessica Cano-Jáuregui from the CNIB Literacy Program in Toronto completed the first level of Moodle training offered by AlphaPlus. Jessica is currently developing a online courses in Moodle for her Deafblind literacy learners. Her courses will include spelling the alphabet, vocabulary building, and basic employment skills.

Note: Logins are required to see more than just the front page of each of the Moodle sites linked to above.

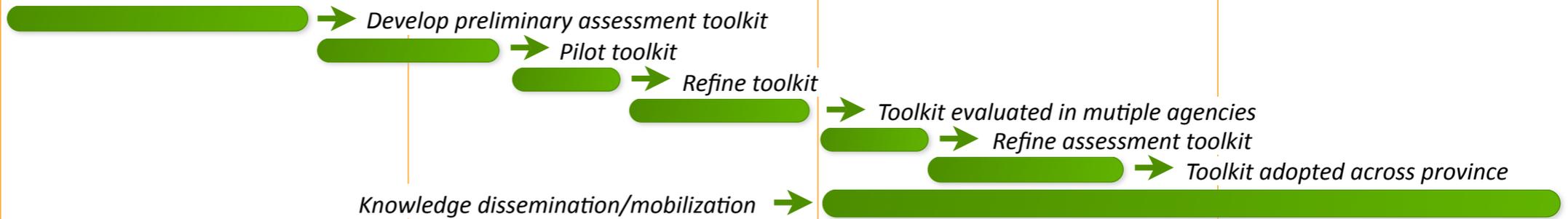
# RECOMMENDATION

2010 OCT 2011 JAN APR JUL SEP 2012 JAN APR JUL SEP 2013 JAN APR JUL SEP 2014 JAN APR JUL SEP

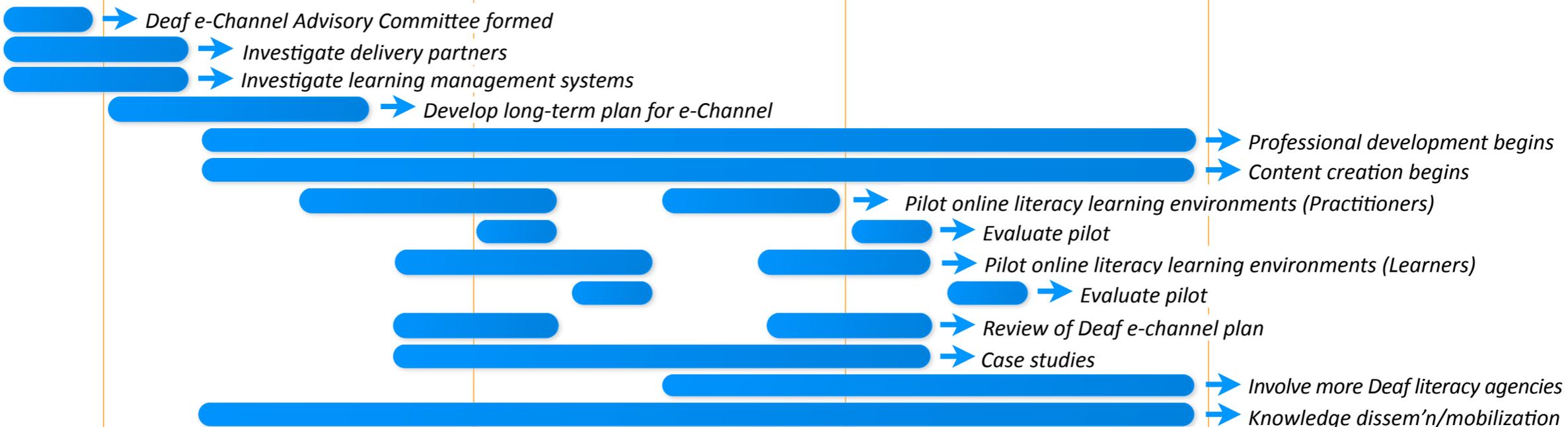
## CAPACITY



## ASL & ENGLISH ASSESSMENT PROCEDURE



## DEAF e-CHANNEL



\* PLEASE NOTE: TIMELINE'S OCTOBER START-DATE IS ONLY FOR EXAMPLE