



## **Putting Learning Technology to Work for Literacy Final Report**

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**Project Number: 0590398**

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**This project was made by possible through the funding of the Office of Learning Technologies, Human Resources Skills Development Canada.**



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## **Introduction**

This report is the result of a study of the use of learning technologies in literacy in Nova Scotia. It is not a scientific study and did not set out to be one for the audience was selected before the study began. The assessment has been created by means of three sources:

- Asset map
- Survey
- Focus Groups

As a result of these three processes, the conclusion was reached that a pilot project to assist with the integration of learning technologies into the literacy programs of Nova Scotia should be developed.

This report contains an overview of the research and an outline for the proposed pilot project.

*Centre for Literacy of Quebec*

“Literacy involves a complex set of abilities to understand and use the dominant symbol systems of a culture for personal and community development. The need and demand for these abilities vary in different societies. In a technological society, the concept is expanding to include the media and electronic text in addition to alphabets and numbers. Individuals must be given life-long learning opportunities to move along a continuum that includes reading, writing, and the critical understanding and decision-making abilities they need in their communities.”

## **Executive Summary**

The project goals of the Putting Learning Technology to Work for Literacy project were three:

1. To examine the extent to which adult literacy learners in Nova Scotia have access to learning through technology.
2. To determine to what extent community-based literacy organizations use learning technologies effectively and with optimal outcome in their operations and service delivery.
3. To develop an action plan for the optimal use of learning technologies in the delivery and support of adult literacy programming in Nova Scotia and a Pilot Project Proposal to the Office of Learning Technologies for its implementation.

The target audience consisted of all practitioners, learners and the coordinators of the 27 literacy networks carrying out community-based literacy programming in the province of Nova Scotia.

The main activities accomplished during the project were the development of an asset map, the formation of partners for a future project, a learning and skills action plan and an evaluation plan.

The level of interest of the target audience was very keen except for the French who did not participate as the focus groups and the survey were in English only.

According to the responses to the survey and the focus group discussions the literacy community needs a great deal of assistance to be able to deliver the Adult Learning Program Curriculum in a manner that incorporates technology. The computer equipment they use is old, inefficient, frustrating and practitioners do not have the necessary skills to integrate technology into the program, yet over 80% of learners feel they need to use technology to find employment.

The envisaged project would attempt to develop transferable skills necessary to optimize the use of learning technologies in the delivery and uptake of community-based literacy programming in Nova Scotia and correspondingly improve the economic growth of learners by increasing their employability skills.

## **Sommaire**

Le projet *Putting Learning Technology to Work for Literacy* visait les trois objectifs suivants :

1. Vérifier dans quelle mesure les apprenants adultes de la Nouvelle-Écosse ont accès aux possibilités d'apprentissage par le biais de la technologie.
2. Déterminer dans quelle mesure les organismes d'alphabétisation communautaire utilisent de manière efficace et pour des résultats optimaux les technologies de l'apprentissage dans leurs opérations et dans la prestation de services.
3. Élaborer un plan d'action pour une utilisation optimale des technologies de l'apprentissage dans la mise en œuvre de programmes et le soutien pour l'alphabétisation des adultes de la Nouvelle-Écosse ainsi qu'une proposition de projet pilote à l'intention du Bureau des technologies d'apprentissage pour la mise en application du plan.

Le groupe cible est composé des intervenants, des apprenants et des coordonnateurs des 30 réseaux d'alphabétisation qui offrent des programmes d'alphabétisation communautaire en Nouvelle-Écosse.

Les principales activités effectuées dans le cadre du projet comprenaient la préparation d'un plan des atouts, la formation de partenaires pour une initiative future, un plan d'action sur l'apprentissage et les compétences ainsi qu'un plan d'évaluation.

La clientèle cible a exprimé un intérêt prononcé pour le projet, à l'exception des francophones qui n'ont pas participé puisque les groupes de discussion et l'enquête étaient en anglais seulement.

D'après les résultats de l'enquête et des groupes de discussion, la communauté d'alphabétisation a besoin d'une aide substantielle pour offrir un programme d'apprentissage des adultes qui utilise les technologies. L'équipement informatique utilisé est désuet, inefficace, est source de frustration et les intervenants ne possèdent pas les compétences nécessaires pour intégrer la technologie dans le programme. Plus de 80 % des apprenants croient toutefois essentiel de pouvoir utiliser la technologie pour trouver un emploi.

Le projet proposé visera à développer les compétences transférables nécessaires pour optimiser l'utilisation des technologies de l'apprentissage dans la prestation et la mise en œuvre des programmes d'alphabétisation communautaire en Nouvelle-Écosse et, de ce fait, favoriser la croissance économique des apprenants en renforçant leurs compétences en matière d'employabilité.

## **Intended Reach of the Project**

The target community for this project includes literacy providers and adult literacy learners across the province, many of whom live in rural areas. An estimated 700 adult literacy practitioners and more than 2000 adult learners will benefit from the project since it is provincial in scope.

There will be an executive director, project coordinator, administrative assistant, advisory committee, leadership team, information technology specialist, plain language specialist, learner specialist, evaluation specialist, and bookkeeper. There will be several partners including Nova Scotia Department of Education, Nova Scotia Community Access Program, Nova Scotia Provincial Libraries, and NovaKnowledge Technology Recycling Program.

## **Activities**

### **A. Asset Mapping**

Following investigation of several approaches, which were much too expensive for the allotted budget, best advice accepted, concentration should be placed on the one aspect of importance to the project and mapping what was available in that area. The selection made was delivery of learning technology by organizations throughout the province. To facilitate the data being inputted in the most efficient, cost effective manner, a web site was established on the National Adult Literacy Database and entry was begun and continued throughout the project, as more data was obtained. Telephone became the major source of research and gave the most reliable data but was extremely time consuming. The sources were placed in the database, provincially, county by county. Upon completion, they were transferred electronically in Excel format and analyzed by county to see what was available in each. The assets, which will prove most valuable, will be the areas in which the target audience will be receiving workshop delivery, Community Access Program (CAP), Provincial Libraries and Nova Scotia Community College sites. Forging these partnerships will be important to the ongoing work of literacy provincially.

Doing an asset map of an entire province is a much too ambitious plan for any six-month project. Searching by means of the Internet proved fruitless, except to suggest categories, as too much of the information available was out of date. Much too much information is developed on the Internet and left for years and used when it is no longer valid. Input received during focus group discussion was extremely valuable and led to further contacts and more reputable sources.

**The asset map in its entirety can be found in Appendix E**

## B. Develop Partners

Potential partners were asked to be members of the Advisory Committee of the developmental phase so that they would be aware of what was happening and hopefully see the importance of continuing in that capacity if a pilot phase came about. Others became clear by means of the asset map and have been approached to become members of the Advisory Committee as well as partners in the pilot phase. Unfortunately, not all those who are interested have either the time or the funding to become partners.

The major partners for the pilot project are:

- **Nova Scotia Department of Education** – In-kind contribution include
  - Advisory Committee member, assistance with curriculum development, travel \$ 8,000
  - Focus Group Meetings \$ 6,000
  - Adaptation of curricula based on feedback \$ 6,000
  - Create instructors' CD ROM \$10,000
  - Professional development design and delivery \$5,000
  - Curriculum Specialist \$40,000
  
- **Nova Scotia Provincial Libraries** – In-kind contribution includes
  - Use of computer labs-8 sessions \$400.00/session
  - Advisory Committee member \$280.00meeting
  - Use of "Elluminate" Virtual Meeting Software \$2,000 /session
  
- **Nova Scotia Community College** – In-kind contributions include
  - Use of computer labs – 8 sessions \$400.00/session
  - Advisory Committee member \$350.00/session
  
- **Nova Scotia Community Access Program**
  - Use of public access computers \$800.00
  - Use of computer labs – 4 sessions \$400.00/session
  - Advisory Committee member \$280.00/session
  
- **NovaKnowledge Technology Recycling Program**
  - Supplying refurbished computers-200 \$300/computer

As well, when work is being done on a survey, asset map and focus groups, and an analysis of each, it does not leave much time for development of partners. With more time, more partnerships might have been developed; contact could have been made sooner and with more fruitful results. To have received the results we have in such a short amount of time is extremely acceptable.

### **C. Action Plan**

The action plan is the direct result of the analysis of the information gathered from the focus groups, survey and asset map. The members of the literacy community in the province spoke of what was needed to be successful with a technology thrust and the action plan seeks to fulfill their needs, by means of using partners and important players in literacy in Nova Scotia. The four objectives of the action plan are the themes that came through most clearly from the provincial focus groups. The most difficult part of the action plan was to look at the activities realistically in terms of months and years and the budgeting required to complete these actions. To work as part of a team and look for assistance when unable to accomplish something, is the best lesson learned from this activity.

### **D. Evaluation Plan**

In the development of the action plan, what was most important was that the evaluator heard what the project team was saying and worked closely with them. In this manner the evaluation became more of a support to the proposal than an attachment. The evaluation would serve as a tool to keep the project on course and to mark the successes of the project as it unfolds and.

## **Results of the Developmental Phase**

All activities were completed during the developmental phase.

In an attempt to put the results of the developmental phase in one word it would be the word "Struggle". The members of the literacy community involved in the focus groups, which numbered well over 250, all spoke of the struggle they had to use, instruct in the application of and coordinate the delivery of technology in community-based literacy programs. Surveys identified the need by learners, the desire by practitioners and the commitment by coordinators but the equipment was not reliable, students became frustrated and practitioners felt an inability to integrate technology into the curriculum, on their own. The asset map pointed to partners that could be utilized but there were roadblocks in many instances. All of these issues pointed to the need for an organization that might be able to clear away some of the debris creating roadblocks and forge ahead allowing technology, a much needed resource, to become an integral part of community-based literacy programs.

The Equipe d'alphabetisation-Nouvelle Ecosse, the community-based francophone organization did not participate in the survey for practitioners and learners. The coordinator did participate in the survey and in the focus group. The coordinator indicated in the focus group that her organization would have no interest in the project.

The developmental phase confirmed clear interest in the community for the project being proposed and the three goals of the project were accomplished. The attached proposal reflects the results achieved.

### **Project Management**

**Project Coordinator** – The coordinator worked under the Executive Director and was responsible for carrying out all aspects of the project. The coordinator worked closely with the Executive Director, Administrative Assistant and the Advisory Committee in the development of the assessment tools, reports, and proposal related to the project.

**Executive Director** – The Executive Director was responsible for the management of the project. With her depth of knowledge in the field of literacy, she was an invaluable assistance to the coordinator. Her community and government expertise made contacts much easier.

**Administrative Assistant** – The assistant was able to give information to the coordinator to assist with the initial contacts to be made provincially. She assisted with organization and delivery of focus groups and survey distribution. As well, she became the conduit between the bookkeeper and the project.

At the first meeting of the Project Coordinator and the Executive Director of Literacy Nova Scotia, the work plan was discussed at length and became the touchstone for the entire project. Regular meetings were held and electronic communication was continuous between the Admin Assistant, Coordinator and Executive Director. Following the development of the Advisory Committee, the work plan was shared with them and they were kept up to date as milestones were accomplished and input was requested.

## **Conclusion**

The social and technological changes that have taken place in our society have transformed our world more rapidly than any other time in history and this has impacted on how literacy is taught and viewed by society. It has created a myriad of definitions and various literacies, such as technological literacy, have taken on a heightened importance. There is agreement on one point and that is the definition of literacy is much more expansive than merely an ability to read and write.

Paul Gilster, author of *Digital Literacy*, defines digital or technology literacy as the ability to understand, evaluate and integrate information in multiple formats via computer and the Internet. It means being able to read as well as integrate and use resources from multiple sources and communicate these newly constructed pieces of knowledge to others. Gilster calls this "knowledge assembly."

*Digital Literacy by Paul Gilster, John Wiley & Sons, Inc. 1997*

According to the Conference Board of Canada, workplace basic literacy includes an ability "to use computers, technology, tools and information systems effectively."

All of these issues, literacy, digital literacy and workplace literacy lead us to understand an ability to use technology is of paramount importance in our society today and to literacy learners in particular. Of the 500 learner surveys returned in the Putting Learning Technology to Work for Literacy Project, over 80 %, believe they need to know how to use technology in order to get a job. Learners involved in the focus group saw computers as being another way in which they were being marginalized by society. 68% of practitioners saw a lack of role models for using computers with adult literacy as a minor to serious barrier to the use of technology and 62% felt inadequate access to technology was a minor to serious barrier. This is an important issue. The question to be asked is, what is the best way to teach both literacy and technology and how to do this integration in the best possible manner. This proposal supports a solid foundation on which to build technology integration. There must be efficient well-maintained equipment, a technical knowledge base for the practitioners and learners and the cooperation of the curriculum owners for integrating technology into the curriculum. All of these components were established during the course of this project.

Paramount to any technology thrust must be an understanding that the computer should not become the content but rather a tool by which we communicate, collaborate, research and solve problems. However, before it can be used as an efficient tool, the user must have a basic understanding of how to operate this contraption and possess the basic fundamentals to get started. Therefore, the thrust of future work will be threefold:

1. To establish access to learning technology
2. To provide professional development for practitioners

### 3. To develop adult learners' technological capacity

While these initiatives are taking place, the vision, to improve the economic growth of learners by helping them enhance their literacy and technology skills, will be shared with the wider community. This will be done by including the IT groups not traditionally linked with adult literacy and encouraging an understanding that literacy is a cross-cutting issue that impacts on us all.

However, no action plan for integration of technology into literacy would be successful without the assistance of a revamped curriculum that will include learning outcomes and objectives for integrating technology and learning. This piece of the package is crucial to the success of the entire enterprise because it is critical that the Nova Scotia Adult Learning Program curriculum include a technology skills thread throughout so that the importance of what is being supported and promoted in the proposed pilot is seen as integral to literacy instruction.

Curriculum specialists, informational technology specialists and literacy practitioners from the Advancing Learning Technology Leadership Team will work to embed technology skills instruction in the curriculum. Workshops delivered previously to the literacy community, in the earlier phase of this project, will lay the infrastructure for the integration of technology into the learning process and a new series of workshops, introducing the new revised curriculum, will begin. This will complete the cycle and the computer will become another tool to help the learner reach his or her goal rather than an end in itself.

We are not trying to educate for the future; we are trying to educate for today. However, in educating our learners for today we will be equipping them with the skills needed to be life-long learners in a knowledge based economy. Life-long learners are open to life in the information age in which they live. They seek knowledge quickly, integrate it with their prior learning and experience to help solve problems and move forward with confidence.