iSisters™
TECHNOLOGY MENTORING

FINAL REPORT OF THE **ISISTERS'** PROGRAM EVALUATION

For the Canadian Council On Learning

Creating bright futures

CANADIAN COUNCIL ON LEARNING CCL CCA CONSEIL CANADIEN SUR L'APPRENTISSAGE

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About iSisters

iSisters Technology Mentoring Inc. is a Canadian charitable organization that was founded in 2001. Our mission is to connect women in need with technology through mentoring. As a leader in technology learning and development, iSisters helps empower women in need to live better lives, create brighter futures and build stronger communities.

iSisters increases economic earning potential and independence for women in poverty in Ottawa who are unemployed, have limited education and depend on government services for basic needs. iSisters' award winning, sustainable and innovative technology mentoring programs, offered free to participants, are built through strategic alliances with non-profit community partners. iSisters' programs enhance employability skill development, provide a critical and effective stepping stone to improved quality of life and initiate long term and high impact positive change for marginalized women.

We design and deliver community-based technology learning programs in partnership with community organizations that support women in need. Through technology awareness, mentoring and coaching we aim to increase earning potential and economic independence for women in need. Our learning programs are aligned to ISTE NETS (International Society of Technology in Education National Education Technology Standards) and the Conference Board of Canada's Employability Skills 2000+.

At iSisters, we believe in education, volunteerism and community capacity building. We are passionate about the potential of technology as a means to learn, grow and gain economic independence. Our learning programs are built in collaboration with community partners, are customized to meet the needs of learners and are built to be sustainable (without the need of onsite support from iSisters) within two years.

Each year iSisters engages in a formal partnership with community organizations supporting women in need. To date we have partnered with Cornerstone, Immigrant Women Services Ottawa, Youville Centre, Tungasuvvingat Inuit, Big Brothers Big Sisters Ottawa and St. Mary's Home. Since 2001, we have worked with over 600 women helping them to learn about technology, media literacy, gain self esteem, explore career options and prepare for the world of work. You can find more information about iSisters at <www.isisters.org>.

Executive Summary

The iSisters Technology Mentoring program evaluation employed a summative evaluation design with the intended purpose of monitoring the impact of iSisters' community-based, technology-enabled employment support programs. The research model was based on a quasi-experimental, mixed methods approach. As such both qualitative and quantitative data were gathered using a web-based exit survey and face-to-face interviews with program participants and partner organizations. Eight key determinants of the impact of the iSisters' program were included in the web-based exit survey. In addition, the learner and partner interviews each focused on six key probes to explore the evaluation's two main questions: i) what was the impact of iSisters' community-based employment support programs on program participants' employability and technology skills; and ii) what factors impacted most on building sustainable programs with iSisters' community-based partner organizations.

The results from the online survey can be summarized as follows:

Quantitative

- Demographic results yielded differences based on the type of program in which participants participated (i.e., Immigrant Women's Services – Ottawa [IWSO] clients tended to be more educated, and married and/or employed; Youville participants tended to be single, less educated and unemployed).
- Computer usage and access results showed increased rates of use after having participated in the iSisters program, particularly with respect to communication (i.e., sending/receiving emails) and leisure activities (e.g., downloading pictures).
- Overall satisfaction ratings and program perception results were extremely positive with respect to the following factors: i) pace and length of the program (although learners noted that a longer program would be welcome); ii) willingness to recommend the iSisters program to a friend and/or to take another course; iii) value of the guest speakers; and iv) finding employment, or pursuing another learning opportunity following graduation from the iSisters program.
- Respondents rated certain technology skills higher than others, with the largest impact areas in respondents' understanding of basic computer use, followed by comfort in using technology. The highest rated employability impact areas were in the ability to i) recognize and respect diversity and individual differences and ii) recognize self and others' good efforts.
- Impact ratings differed significantly by program, with IWSO learners rating the impact much higher than Youville learners in both technology and employability skills; however, variability in impact ratings was also much higher in the Youville group.

Qualitative

- The majority of respondents noted that they liked learning about either technology or employability skills (i.e., computer and office skills) or appreciated the helpfulness of the instructor, referring specifically to the small classroom environment which allowed the instructor to be more responsive and answer their questions promptly.
- Most respondents indicated that the program length was too short, and suggested that there should be more learning opportunities to practice computer software related to the office including Adobe Photoshop or Microsoft Office (e.g., Excel).
- It was evident from the results that iSisters must reconsider the purpose and use of open lab times. Many possible formats for the sessions exist such as a "drop-in" format, with stand-alone activities targeting higher level skills such as i) desktop management; ii) word processing; iii) keyboarding; iv) customizing résumés; and/or v) various types of content delivered over longer periods of time.

In addition to valuable information obtained from the online survey, several themes emerged from two groups of learners, as well as two partner interviews, which took place in the summer of 2008.

Learners

- iSisters' ability to deliver highly effective and impactful employability and technology training to disadvantaged women was validated. Learners commented on two main reasons contributing to this success: i) the notion of feeling safe to learn is held paramount by instructors, and ii) a protective environment wherein disadvantaged women learn best is established.
- Through concepts learned in class and the nurturing of a "try it" attitude, learners reported how they had overcome their fear of technology and integrated newly acquired technology skills into their personal lives.
- With new technology skills and comfort, clients developed the confidence to pursue other learning and/or job opportunities beyond the iSisters program.
- Since the mentoring model works, and women who have learned through mentoring are eager to share that learning with others by providing time back, iSisters and its partner organizations should consider the benefits of the mentoring approach as a way of building capacity onsite.
- Some programming changes might be considered, including: i) keeping the lab open after hours; ii) advertising iSisters programming more widely in the community; and iii) continuing to remove barriers to accessing the iSisters program (i.e., transportation, child care).
- The congruency between the iSisters' program and that of other educational/training organizations was recognized.

Partners

- Again, iSisters' ability to deliver highly effective and impactful employability and technology training to disadvantaged women was validated on an agency-specific level and on a community-wide level.
- A major theme identified the necessity of ongoing support from iSisters in order for partners to move effectively towards a sustainable model and continue capacity building vis-à-vis technology and employability training to their respective clientele.
- Several challenges in securing a dedicated instructor were also discussed, including the importance of ensuring that instructors received integrated, cross-curricular professional development in technology.
- Overall, qualitative data from the partner comments indicated that there was a 'good fit' in the partnership between organizations in terms of iSisters' willingness to i) learn about the clients' needs, and ii) design/deliver flexible and appropriate programming that attracts new learners with each offering.

Funding, Availability, and Disclaimer

This work was funded by a contribution from the Canadian Council on Learning

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The opinions expressed herein are solely those of the authors. The Canadian Council on Learning bears no responsibility for its content.

About the Authors

Judy Puritt, Program Manager

Judy has been involved with iSisters since early in 2005. She is passionate about using technology as a learning tool and dedicated to empowering women in need. At iSisters, Judy has been involved in course design and delivery for partner programs at Tungasuvvingat Inuit, the Youville Centre, Immigrant Women Services Ottawa, and Cornerstone. She enjoys working in a collaborative atmosphere and consequently has been involved in the planning and creation of the online employability and technology course, iTeachnology™; moreover, she has participated in assorted team writing projects – everything from newsletters to this report.

Judy is currently also a professor of communications for the School of Business at Algonquin College, and she is completing a Master's in Adult Education through St. Francis Xavier's distance education program. She completed a Bachelor's degree in Political Science from the University of Toronto in 1984 and a Bachelor's degree in Education in 1987 from the University of Ottawa. Still, as an ardent lifelong learner, Judy has taken many other adult interest courses including ones in computers, botany, marketing, hip-hop, and has even earned a blue belt in judo after taking up that sport in 2001.

Judy enjoys living with her family and three dogs on a rural property in north-west Ottawa, Ontario. Her family is comprised of two sons who attend high school, a daughter who has just started university in Toronto, and a husband whose consultancy practice involves clients in the Ottawa area, as well as locations worldwide.

Steven McKibbin, Lead Researcher

Steve graduated from Carleton University in 1998 with an Honours degree in Psychology, and from the University of Ottawa in 2000, with both a Bachelor's and Master's degree in Education. Working side-by-side with the co-founders of iSisters in 2000, Steve has been privileged to be involved with the organization since its inception. Moreover, Steve worked in many of the capital region's post-secondary, not-for-profit lobby organizations, and with the federal government as an independent researcher until 2004 when he joined the Ottawa-Carleton District School Board.

Steve currently works in the Quality Assurance division of the public school board, where his major responsibilities include conducting program reviews; reviewing external research applications; and providing advice to the system on issues related to applied research. In addition to his research consulting services, Steve also teaches political science part-time within Algonquin College's Police and Public Safety Institute.

Steve's personal interests include playing bass guitar with his band, The Red Marilyns, and playing hockey with the Wednesday night gang at MacNabb Community Centre. He lives in Manotick, Ontario with his wife, Kelly (and cat Tigger).

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We would like to acknowledge the vision of iSisters' CEO and one of the original founders, Catherine Lewis, who has been an irreplaceable beacon in this project. Her focus and dedication to iSisters' core mission of providing better futures for women in need through technology and employability mentoring is truly inspiring. In her work with and for iSisters, she has been an inspiration to all who have been privileged to know her; she has been a wonderful friend and mentor, crafted lasting community and corporate partnerships, secured varied and extensive funding, and incorporated lessons learned with each new program partner.

We would like to thank the iSisters' Executive and Board of Directors for support throughout the project. Thank you especially to Jennifer McEvoy for being enthusiastic and equally patient when life got in the way; her skillful management ensured the project's closure.

We would like to thank the learners who have taken courses offered by iSisters; they have left an incredible imprint on all the teachers. In many cases they have faced great personal challenges and yet remained engaged and sunny and continued to attend classes. This engagement in class, their comments and feedback, their stories and treats, their participation in surveys and in the small group interviews, and their wonderful word-of-mouth endorsements of iSisters' programming were all invaluable!

We would like to thank our program partners who opened their facilities and welcomed our presence, always treating us with tremendous respect and greeting us warmly. Our partners ensure that the labs are kept clean and secure, they arrange daycare and transportation support for learners, they provide snacks and refreshments for break time, they enthusiastically endorse our programs throughout the non-profit community, and they join in celebrating each group of learners upon course completion.

We would like to thank all the many, generous people who have volunteered with iSisters, conducting classes and supporting our programmes. In particular, we would like to recognize Zahide Yilbas, whose magnanimous volunteer contribution and rapport with learners at the IWSO program ensured a second round of learner interviewing.

We would like to thank Anthong Le for his efforts in transcribing the recordings and providing preliminary analysis of the survey data.

And finally, our thanks would not be complete without extending heartfelt appreciation to our supportive spouses and families, with special recognition to Kelly, Edan, Alicia, Calvin, and Daniel.

Judy Puritt, Program Manager
Steven McKibbin, Lead Researcher

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1. Introduction

1.1 Program Description

The mandate of iSisters Technology Mentoring (iSisters) is to connect women in need with technology through mentoring, or more broadly, to provide technology-enabled employment support programming for marginalized women and to encourage lifelong learning. Using a community-based approach, iSisters programs are centered at partner sites and offer an integrated approach to learning featuring in-class and online learning, career coaching and opportunities for work placements. This mentoring approach to learning is a unique and comprehensive approach to building the technology and employability skills of marginalized women in the Ottawa area.

As iSisters has been in existence since 2001, the organizational approach to partnerships is arranged over a multi-year plan. While each program is unique and delivered at the partner site, all programs aim to help women learn about technology, explore career options, develop an interest in lifelong learning, gain self-esteem, improve earning potential, and achieve economic independence. The fundamental principle of providing access to technology and employability skills at sites already familiar to the women because of other services they access there has been highly successful.

In the non-profit community, iSisters enjoys a very highly respected status, with organizations both eager to partner with us and eager to hear about our story. Beyond respectful engagement with learners and partners, iSisters welcomes opportunities to examine our program methodology and the impact the technology mentoring program has on target learner groups. Already in December 2004, iSisters won the prestigious Conference Board of Canada award for Community-based Learning Opportunities for Aboriginals (see Appendix 8.) It was not surprising, therefore, that iSisters applied for and won a grant from the Canadian Council on Learning to research our community-based technology-mentoring and employability programming. This report is the result of intensive investigation and research conducted over the past two years on iSisters' program effectiveness and impact.

1.2 Partners

iSisters engages many players in an extensive support network. Partners are often long term relationships which provide ongoing critical resources for effective programs. In-kind donations allow iSisters to build state-of-the-art learning centres without adding these costs to the budget (leaving donor dollars for core programming). Beyond this, iSisters accesses diverse grant sources which provide essential resources for iSisters to build, implement, and support sustainable and professional community-based learning programs. iSisters' partners are vital players on our team and we integrate them into our planning and development processes as well as our successes (such as graduation ceremonies and public events).

iSisters Partners

Partnership Types	Partner Organizations
Program Partners	Big Brothers Big Sisters Cornerstone Immigrant Women Services Ottawa St. Joe's St. Mary's Home Tungasuvvingat Inuit Youville Centre
Funding and Strategic Partners	Community Foundation of Ottawa Frank Cowan Foundation Ontario Trillium Foundation
Corporate Partners	Adobe-Canada Advanced Business Interiors Alcatel-Lucent A tv bv02 Dell IBM Canada Magma Scotiabank Suncor

Helping make iSisters' programs possible

Youville Centre
www.youvillecentre.org

Tungasuvvingat Inuit
www.ontarioinuit.ca

Immigrant Women Services Ottawa
www.immigrantwomenservices.com

Cornerstone
www.cornerstonewomen.ca

St. Mary's Home
www.stmaryshome.com

Big Brothers Big Sisters
www.bbbso.ca

St. Joe's
www.stjoeswomenscentre.org

Ontario Trillium Foundation
www.trilliumfoundation.org

The Community Foundation of Ottawa
www.communityfoundationottawa.ca

Scotiabank
www.scotiabank.com

The Frank Cowan Foundation
www.cowangroup.ca

Adobe Canada
www.adobe.com/ca

Suncor Energy Foundation
www.suncor.com

Alcatel
www.alcatel.com

A
www.atv.ca

bv02 Inc.
www.bv02.com

Advanced Business Interiors
www.makespacework.com

IBM
www.ibm.ca

Dell
www.dell.com

Magma Communications
www.magma.ca

Program Partners

Due to strategic alliances in the community, iSisters is able to offer customized community learning programs free of charge. Inasmuch as iSisters' programs target marginalized women (frequently low income), free programming is critical and, moreover, accessing the program is supplemented with incentives such as transportation costs and child care support. Each year iSisters undertakes a partnership with a new community-based agency charged with supporting women in need. Each program is designed in collaboration with the partner and customized for the specific learning needs of the target group and St. Joe's Women's Centre (offering day support and services to homeless and disadvantaged women and their children).

Much of our community partnering involves in-kind, as well as actual financial support. Program partners arrange space within their facilities, so that clients have that primary comfort or site familiarity as they begin to learn more about technology and its link to enhanced employability. Typically, an office at the site partner location is converted to a learning space for delivering iSisters' courses.

When this project was initiated in 2006, iSisters' program partnerships included the Youville Centre (supporting teen mothers), Tungasuvvingat Inuit (providing community support for displaced Inuit), and Immigrant Women Services Ottawa (delivering programming and support to new Canadian women). Since that time, iSisters has expanded its partnerships to include Cornerstone Shelter, Housing for Ottawa's Homeless Women (providing temporary housing and program support to homeless women) and St. Joe's Women's Centre (offering day support and services to homeless and disadvantaged women and their children).

Funding and Strategic Partners

Beyond program partners, a core element of iSisters' partnership development is with foundations, corporations and other supportive community partners. The Community Foundation of Ottawa has provided pilot and core funding for many iSisters' programs; it has also supported the organization in other vital ways such as advising on new partners, advocacy and helping iSisters build community networks for over five years.

The Ontario Trillium Foundation has provided three years of operational funding to support internal capacity building and prepare the organization for expansion and growth. The Frank Cowan Foundation has provided a multi-year grant to support the learning program for homeless women at Cornerstone.

Corporate Partners

iSisters has never purchased a computer, nor has iSisters purchased any office furniture. Through a long standing relationship with IBM Canada, iSisters has created six learning centers equipped with top-of-the-line computers. These technology grants have totaled as much as $50,000 in donations

per year (Youville value), and form a critical part of program delivery and the move toward a sustainability model for our program partners. In addition, Advanced Business Interiors (ABI) has helped design iSisters' labs as efficient work environments, donating desks and chairs for the work stations. Adobe-Canada has also been a long standing partner supplying various combinations of volunteers, software and financial support for the past six years.

The corporate partnerships iSisters has nurtured enables each program partner to start with a homogenous and new learning environment each time. The newness of the lab, particularly the technology newness requires limited maintenance over the long-term—an important consideration for most non-profits, because allocation for onsite technology support (and expertise) is typically limited. In short, a new and homogenous lab is easier to support than a donated patchwork of hardware and hand-me-down furniture that needs regular servicing, and provides learners with experience on common workplace software, as opposed to using open source shareware. Furthermore, it is important to note intangibles, such as the morale boost iSisters' learners receive in accessing dedicated learning spaces in these labs which have been so generously outfitted with new hardware, software, and furniture.

1.3 Mentor Instructors

The instructors iSisters engages are carefully selected to fit with the philosophy of mentoring marginalized women, and indeed, no instructor has delivered a program without first being mentored herself. iSisters ensures that each program is prepared following a general guideline (using Conference Board of Canada Employability Skills and incorporating International Society for Technology in Education Standards). The specific design of the program is then arranged after consultation between the program partner and the iSisters' instructor, and then is delivered by one instructor from start to finish, maintaining classroom and learning continuity. Each instructor approaches the basic technology and employability content in a personal manner and in this way develops an important rapport with the group of learners, while following a rigorous curriculum.

1.4 Unique Partner Learning Environments

The learning environments of iSisters' programs are unique to each partnership agreement. The set-up of each lab, with state-of-the-art computers, running new and current business software, and arranged at individual new work stations underscores iSisters' philosophy regarding the innate worth of women in need—they are deserving of new products and services. Although iSisters has had other partnerships pre-dating 2003 (notably, St. Mary's Home for Pregnant Teens and Big Brothers Big Sisters Organization), and is currently setting up another new partnership (with St. Joe's), the groups listed below are relevant to this evaluation.

Partners Engaged in this Research Project

Partner Organization	Population Served
Youville Centre	young mothers
Tungasuvvingat Inuit	unemployed or underemployed Inuit
Immigrant Women Services Ottawa	newcomer women to Canada who are survivors of violence
Cornerstone	homeless women

Immigrant Women Services Ottawa (IWSO): 2006

The learners from Immigrant Women Services Ottawa (IWSO) are immigrant women who are survivors of violence and are typically newcomers to Canada. Some IWSO clients have been in Canada for several years, but due to family responsibilities upon their arrival were not ready to enter the labour market, while other IWSO clients may be so new to Ottawa that they have not even experienced all four seasons here.

Youville Centre (Youville): 2004

In contrast, clients from the Youville Centre comprise mainly young mothers facing economic, social and/or academic barriers to the modern workplace. These young women come from a variety of backgrounds (with or without family support, still in contact or not with the father of the child, academically strong or marginalized prior to parenthood,…) Typically, all the Youville learners struggle to coordinate the responsibilities of single-parenting a new child while completing a high school education.

Tungasuvvingat Inuit (TI): 2003

Next, Tungasuvvingat Inuit (TI) supports unemployed or underemployed Inuit who use the drop in and counseling services offered. Men, women, and youth use the facilities at TI, and so the course initially prepared for TI women has been modified by TI staff to accommodate its broader clientele.

Cornerstone Shelter and Housing for Ottawa's Homeless Women (Cornerstone): 2007
Finally, Cornerstone Women's Shelter, iSisters most recent partner agency provides support to homeless women in the downtown core of Ottawa. The partnership developed with Cornerstone introduced another new approach to programming for iSisters, since the initial use of the lab was for Professional Development of the staff at Cornerstone, who typically had limited reason to use and access to computers.

1.5 Partnerships Involved in this Project Evaluation

Initially, for assessment in this project, iSisters targeted the partnerships with Youville Centre, Tungasuvvingat Inuit (TI), and Immigrant Women Services Ottawa (IWSO). Although TI was not as involved in the project as originally targeted (in terms of survey completion and partner interviewing), it is still included in the report. Given that iSisters partnerships expanded to include Cornerstone Women's Shelter in year two of this project, their participation in the project is also discussed. Indeed, as all four of these partners are 'current' and are all recipients of iSisters employment support learning programs designed to assist their respective clientele to achieve career goals and to improve technology skills, they are each included in this research project.

1.6 Report Format

Following this introduction, the report moves into a section which outlines the project background, purpose, and core questions to be answered. The next section is a review of the literature, examining i) research related to employability skills and marginalized women; ii) adult learning; iii) empowering women through employability and technology training; iv) classroom learning environments; v) technology and employability training—now and in the future; and vi) participatory evaluation as a valid research methodology.

After the literature review, the methodology of the evaluation which includes a description of the data collection tools and procedures, as well as the protocols used to ensure anonymity and informed consent, will be presented. A brief rationale for the modifications to the original evaluation plan will also be discussed.

In the results section, a summary of demographic, qualitative and quantitative results will be presented. Special attention is paid to the two questions on the online survey which measured employability and technology skills, and a summary of statistical group comparisons on these measures is included. The qualitative results from both the learner and partner interviews will address some of the major themes emerging from the data and attempt to relate this information to findings from the online survey as well. Several direct quotes from survey and interview participants are included throughout the findings, as well.

After a discussion of the results and concluding remarks a section of recommendations is offered for consideration. Several appendices are also included to supplement understanding of specific portions of the report. Finally, tools designed by iSisters and included in this report are available for use and adaptation by other non-profit organizations.

2. Project Background, Purpose and Research Questions

2.1 Background

When iSisters started this Canadian Council on Learning applied research project in 2006, it generated considerable excitement at iSisters with the research team and the Board. People who have been involved with iSisters directly (in a volunteer, participant, or employee/contractor capacity) have long contended that the service provided to marginalized women is tremendous and highly worthwhile. In formally researching the impact of iSisters' programming, the promise of replicability and scalability for other organizations to adopt and implement iSisters' program methodology and mentoring approach to adult learning was significant.

iSisters has nurtured community and corporate partnerships over several years which have enabled the addition of new program partners on a yearly basis. The fundamental principle of providing access to technology and employability skills for women in need through carefully negotiated partnerships has yielded considerable recognition for iSisters. In December 2004, iSisters was showcased by the Conference Board of Canada for the community-based learning approach offered at Tunasuvvingat Inuit which connects women in need with Information and Communication Technology (ICT) skills. (See Appendix 8.)

Still, iSisters does not like to rest on past achievements, and in taking on this project, iSisters planned to formally and internally evaluate the impact of learning programs on the women being mentored. Furthermore, the project offered an opportunity to examine the sustainability of the iSisters' program model and potentially share some of the tools with other non-profit organizations. iSisters also hoped to use this project as a vehicle for expanding the learner experience by introducing content delivery in a blended online and in-class learning environment by the fall of 2007. Developed in-house, iTeachnology™ is an online learning resource designed to provide technology and employability skills in a portable and highly accessible format to learners everywhere. Indeed, the thought of integrating iTeachnology™ into regular technology and employability programming that iSisters offers its partners, led to discussions of even more remote expansion possibilities.

As originally outlined, the proposed project included partnerships with key stakeholders including community-based organizations, corporate partners and the academic community. In keeping with a fundamental philosophy that this project would build on previous learning and experiences, iSisters was keen to set measurable goals, track outcomes, analyze findings, and report on the research. With each new partnership, iSisters has followed this model of 'build on previous learning and experiences' to create a suitable and effective program. Based on initial technology

skill guidelines from ISTE-NETS and employability skills from CBC, iSisters has used its expanding repertoire as it has helped identify employability needs, developed learning programs, trained for sustainability, identified strengths and weaknesses in programs, and incorporated such analysis into modified and subsequent projects.

From the outset, it was iSisters' intention that the final report would provide a framework for other organizations replicating a community-based learning program complete with tangibles such as a partnership agreement template, partner evaluation criteria and analysis of partner and learner course feedback.

2.2 Purpose of the Research

The purpose of the research was to evaluate the impact of iSisters' community-based technology-enabled employment support programs. By providing marginalized women with free technology training, iSisters aims to improve the access learners have to improved employment possibilities or further educational opportunities. iSisters' programs, although always customized per program partner, contain common elements on technology and employability skills and are offered in an integrated approach to adult learning which includes in-class and online learning, career coaching and opportunities for work placements.

When looking at technology and employability skills, preliminary anecdotal findings showed that iSisters' target learners—displaced Inuit women, young single mothers, and immigrant women—were all extremely vulnerable. Through investigating the impact of the program on women who have participated in at least one of the technology and employability courses iSisters offers, the hope is to more precisely assess the programs that are delivered, and make appropriate modifications to programming based on learner feedback. A secondary purpose is to share findings with others who may wish to create/implement similar programs.

Beyond the established in-class component of iSisters' programming, the plan with this project was to incorporate additional employability components including career coaching and work placements for interested and ready learners. In examining the progress of learners who have taken at least one iSisters' course, the intent was to develop a deeper understanding of the "potential of education for social change" (Cunningham, 34).

As the project unfolded, the team determined that it was also critical to revisit the program partnerships, to ensure that iSisters was indeed delivering programming as anticipated and expected by the partners. Although not part of the original project plan, this formal review of the relationship with the program partner was seen as crucial to understanding if and how the iSisters delivery of programming needed to be amended.

The online survey tool developed for capturing learner experiences and suitable for being used with any iSisters' program partner was designed to examine the changes learners know and feel after completing the course (Acott-Smith, 2004, p. 24; Belenky, Clinchy, Goldberger, and Tarule, 1986, p. 47; Merriam & Brockett, 1997, p. 209; Merriam & Simpson, 2000, p. 146). Based on various comments iSisters' instructors had received anecdotally reinforcing the value of the programming being delivered, the team decided to add a formal face-to-face interview with some learners to complement the findings from the online survey. Again, after some consideration of the value of learner interviews, a decision was made to conduct two such interviews, with the distinguishing criteria being that the learners had been mentored by different instructors.

Finally, the project was carefully planned to incorporate learner feedback across different program partners to ensure a valid base for claiming portability of the iSisters' approach to delivering technology and employability training. Although the project does not include survey results from the original three targeted partners, the report does include results from three partners, and in fact discusses findings from four partners.

2.3 Research Questions

The evaluation sought answers to two main questions: i) what is the impact of iSisters' community-based employment support programs on program participants' employability and technology skills; and ii) what factors impact most on building sustainable programs with iSisters' community-based partner organizations.

Figure 1. iSisters and Partner Agency Model

3. Review of Literature

Employability Skills and Marginalized Women
Adult Learning
Empowering Women: Employability and Technology Connections
Carefully Established Learning Environments
Technology and Employability Training: Now and in the Future
Participatory Evaluation

3.1 Employability Skills and Marginalized Women

The kind of targeted support programming that iSisters offers, with a focus to addressing employability skills, is crucial in today's economy where government cutbacks are impacting on the weakest elements in society.

> Women are generally in a less advantageous position than men and have fewer opportunities to achieve economic security... Among the women who are most vulnerable to poverty are single parents,… Aboriginal women,… recent immigrant women, women with low formal education, young women, … and senior women. The evidence further indicates that the options for low-income women to move out of poverty are diminishing as a result of government cutbacks in social spending and the restructuring of the economy (Canadian Women's Foundation, 2004, p. 4).

In *Training the Excluded for Work* Griffin Cohen (2003) argues that in the face of reduced government programs supporting the disadvantaged, it is important to seek out community-based programs which provide good value for invested monies. Training programs which provide access to improved employability and enhanced earning power are critical to addressing systemic poverty. She suggests that the government's shift to reliance on private and profit-based training schemes is not only problematic for those 'excluded', it also does nothing to redress the spreading economic inequities in society.

Employability Skills and Marginalized Women

- empowerment
- dismantling barriers
- community-based
- credentialing
- skills retraining
- lifelong learning

Not only do the 'excluded' face economic hardship, but in 'Learning to work, learning to live,' Butterwick and Buckner argue that the majority of 'hard to employ' individuals are increasingly facing multiple barriers to employment. Entry level jobs are requiring increased basic skills, and with stricter regulations surrounding access to re-training combined with reduced federal-

provincial education transfers, the responsibility of helping dismantle barriers and improve skills through training programs falls to community-based groups (p. 2). To ensure the broadest possible access to iSisters' technology and employability programs, learners receive incentives to encourage attendance and participation on top of the education component. This complex and supportive approach to programming is crucial as the learners themselves experience complex and multiple challenges to employment. Clients who use the services offered by iSisters' partners and through that introduction enroll in an iSisters' course typically experience

> significant barriers to employment… [which] include substance abuse, depression,… learning disabilities, domestic violence, language barriers and a lack of skills and work experience. Clients also face important poverty-related barriers including food insecurity, housing instability and homelessness and child care and transportation challenges… while one barrier may be manageable, multiple barriers can severely impact one's labor market experience (p. 6).

Research further supports the depressingly negative immigrant cycle which iSisters has witnessed firsthand with learners at IWSO. Specifically, many of the IWSO women have various credentials from their homelands (e.g., doctors, administrative certificates, marketing degrees, and teaching qualifications); however, Canadian recognition of foreign credentials is often not attainable or is substantially delayed and fraught with complications (Fenwick, T., Nesbit, T., & Spencer, B., 2006, p. 202). iSisters' employability and technology programming aligns well with the actions suggested by The Council of the Federation in its working paper, Competing for Tomorrow (2006):

> to reduce the earnings gap between immigrants and their Canada-born counterparts… [provide] adequate recognition of skills and training interventions for immigrants and those who require skills upgrading; develop specific strategies to help people in each under-represented group to increase opportunities for sustainable employment;… assist and encourage up-skilling for the working poor and the under-employed to address skills shortages (pp 7-8).

In a similar vein, access to education, that is participation in opportunities to acquire the needed skills to become more economically independent, is more restricted for marginalized women. As identified in the Canadian Women's Foundation and Canadian Women's Community Economic Development (2004) report, a recurring theme in the literature is that low-income women in Canada "face considerable barriers in attempting to move out of poverty, due to their limited access to jobs that provide a decent salary,… to professional and social networks, and/or to training" (p. 7).

It is in this barrier-laden context that iSisters' mission statement resonates exceptionally clearly with the vision espoused by The Council of the Federation (2006), as

> Canadians should have access to lifelong learning opportunities in post secondary education and skills training to develop to their full potential; and Canadians should

no longer face unfair barriers to postsecondary education, skills training and rewarding employment opportunities. Many of Canada's immigrants, Aboriginal peoples, youth, persons with disabilities, social assistance recipients, women and older workers currently face these unfair barriers (p. 1).

3.2 Adult Learning

At the Toronto Roundtable concerning the status of adult learning in Canada actions were proposed to promote a culture of lifelong learning by customizing curriculum, and facilitating learner pathways through community-based organizations (Saunders, 2007, p. 8). In fact, one of the important suggestions was that government levels work together to enable and support community initiatives, in particular, taking advantage of pilots that have shown some success (Saunders, 2007, p. 8). iSisters runs community-based initiatives, setting up labs and mentoring clients in existing facilities, and initial findings suggest that this programming provides adult learners with the confidence and basic skills required to seek further learning opportunities and improve their economic potential. Although many groups are 'left behind' when it comes to education in Canada, the importance of supporting initiatives such as iSisters' partnership with TI is particularly valuable as that same report revealed "relatively low levels of literacy among the Aboriginal population" (Saunders, 2007, p.4).

Adult Learning

- community-based
- mentoring and apprenticeship
- enculturation, socially constructed, community of practice
- learning objectives and standards
- survival through lifelong education
- connectedness
- women learning with women

To deliver effective programming, iSisters' instructors need to be aware of how adults learn. In the iSisters' mentoring model, a close parallel can be drawn to Pratt & Associates' (1998) 'apprenticeship' perspective, in which "learning is facilitated when people work on authentic tasks in real settings of application or practice" (p. 9). As learners incorporate language used in and about technology, as they examine, assess, and internalize values related to technology use, and as they follow respectful practices and behaviours modeled in the class, a transformation occurs. Pratt develops the discussion further by arguing that the "three central tenets of this view are that learning is a process of enculturation, knowledge is socially constructed through participation in a social group, and the product of learning is of two kinds: competence and social identity in relation to the community of practice" (p.10). Indeed, the full apprenticeship approach concludes with instructors providing reduced direction as the confidence and skill levels of learners develop, allowing learners more responsibility and encouraging greater self-direction and independence. Of course, the nurturing perspective is never far removed from any iSisters' classroom, as Pratt

further emphasizes "achievement is the only means by which people can improve their self-confidence and self-esteem as learners" (p.12).

An examination of learning positions, although somewhat abstract, does provide some interesting insights into the workings of iSisters' classes. In Dubin and Okun's article, 'Implications of Learning Theories for Adult Instruction' (1973), the neo-behaviorism discussion resonates well with the iSisters' mentoring or apprenticeship model. In this particular article, the authors reference various theorists, such as Bandura who contends that "modeling techniques may be useful in the alteration of attitudes [and] exposure to a series of models who are held in high esteem may lead to a change in attitude" (p. 7). Moreover, iSisters' approach to curriculum design and assessment aligns nicely with Gagné's extended neo-behaviorism discussion advocating "that instructional objectives be specified for each unit of instruction… [and] each learning situation be assessed by informal discussion and formal test modes, [as] this represents an important source of feedback for the instructor as well as the learner" (p. 8). iSisters lays out very clear learning objectives at the outset of each course, all of which have been carefully and tightly developed in accordance with the Conference Board of Canada's Essential Employability Skills and ISTE-NETS (International Society for Technology in Education-National Educational Technology Standards). Learners are assessed on core concepts in both a formative (on-going) and summative (final evaluation) manner.

In a general discussion analyzing adult learning and how it is shaped by social movements, political activism, and counterculture, Finger (2006) discusses three key paradigms: i) lifelong education as scientific humanism; ii) radical adult education and the pedagogy of liberation as political empowerment; and iii) andragogy as adult development (p. 110). In the truest sense, the programming iSisters delivers is not empowering, vis-à-vis an entire sector, such as marginalized women. However, the shift in understanding and purpose for adults to become educated has moved past the humanizing development aspect of scientific humanism, as well. Quite simply, today, lifelong education as practiced by adults "has become synonymous with development… [and] helps individuals survive as individuals" (pp. 114-115). Certainly with the focus on employability, there is a 'survival' component to iSisters' programming, and yet, the learning that occurs is more than a grasping for betterment by individuals. Indeed, iSisters' approach ties in with Finger's final analysis of andragogy. In looking for the most effective current adult learning opportunities, Finger suggests following the approach adopted by "some organizations, whose objective is to build environmentally sustainable cultures… [whereby] learning our way out is a collective, not an individual endeavour. It is collaborative, not competitive" (2006, p. 117).

Further to this, Clark's (2001) examination of the differences between emotional and narrative knowing suggests "personal narratives are also social because they require an audience… [and] because of the connection between narrative and identity, stories offer enormous potential as a mode of personal change" (p. 88). Since learning is contextual, the classroom must be absolutely safe. As modeled by the instructor, initially, iSisters' learners are encouraged to share their journeys

with the group. More extensively, as "adequate causality" (Clark, 2001, p. 87) accounts for change, each instructor strives to present an authentic and relevant narrative, be it a common immigrant experience or a shared parental concern. Although Belenky et al (1985) suggest 'connectedness' develops typically over a longer frame than the iSisters' average course duration, the principle of removing walls and opening learning opportunities still applies, it is just more intensified.

As underscored by Belenky et al. (1985), "connected teaching is not 'soft'. It is rigorous. And it is objective, although not coldly impersonal" (p. 42). One thing holds true throughout any of the learning environments at iSisters' labs, and that is the aspect of subjectivity and objectivity becoming one. The teacher "does not treat her own experience of the material under study as primary, and she does not assume that her students experience the material as she does… She 'really wants to know' how the students are experiencing the material" (Belenky et al., 1985, p. 43).

Beyond knowing about adult learning, iSisters' instructors need to know how best to foster a learning environment that is welcoming and supportive of marginalized women. A recurring theme experienced by women all over is that of being made to feel or being "treated as if they were stupid. This is especially true of the less privileged." (Belenky et al., 1985, p. 29). "Women need… confirmation that they can be trusted to know and to learn… They need to know that they already know something… that there is something good inside them" (Belenky et al., 1985, p. 30). Belenky, Clinchy, Goldberger, and Tarule (1985) in their study of adult women learners introduced the idea of "connected classes" and "connected teaching" (p. 42), suggesting that such an approach is highly personal and can be very effective.

3.3 Empowering Women: Employability and Technology Connections

Empowering Women: Employability and Technology Connections

- empowerment for individual change
- community of learning
- women using ICTs

It is critical to note that the term empowerment has a different definition in academic circles than it does in the non-profit community. In academia, empowerment is a term used to indicate broad social change for the most part, whereas in the non-profit sector, empowerment is often about individual changes. Considering research such as that conducted by Joanne Helen Green (2005) on women's learning and use of information and computer technologies (ICTs), it is clear that change experienced by learners taking iSisters' courses is small scale and does not represent change on a societal level—women are not empowered as a group. However, much as iSisters has experienced, Green found evidence that women were empowered at the intrapersonal (or micro-) level, and some women even showed signs of interpersonal (or meso-) level development. This ties in nicely to iSisters' training goals, which are focused primarily on the 'micro' level of empowerment, with only peripheral interpersonal empowerment goals. Yet others, such as Brookfield in his analysis

of Foucault (2001), have emphasized that it is only by teaching specific skills, that social change has any real likelihood of being realized. That is, "instead of working on behalf of humanity, the working class, women, the oppressed, or any other massive social construct, adult educators could fruitfully direct their energies towards specific projects" (p.18).

Merriam and Brockett's (1997) finding that "education technology may be used to serve empowerment,… for … women, and minority groups" (p. 209) underscores the basic premise of iSisters' course delivery. In providing technology mentoring to marginalized women in group settings of similar, albeit not fully homogenous learners, iSisters strives to create a community of learning in each classroom. This approach to learning success is supported by Belenky et al.'s (1986) research which argues that for women, "confirmation and community are the prerequisites rather than the consequences of development" (p. 194). Certainly the buzz of learning that happens in any iSisters' lab deepens as each course unfolds and the learners begin to know one another and look forward to learning new skills together.

Activities such as the February 2001 panel session at Woodrow Wilson International Center for Scholars, 'Women E-emerging: Using Information Technology for Networking, Advocacy, and Leadership Training in the Middle East' emphasize the importance of acquiring improved technology skills for marginalized women. Although this panel reviewed global impacts of women accessing and engaging in technology, the discussion on sharing of educational information as related to violence against women was useful, as it examined the positive impact this has had on "bringing awareness to the issue and providing essential information for women on how to deal with abuse" (Yousef, 2001, p. 94). Perhaps the direct connection to iSisters' experience on this front is how each community of learners share learning discoveries with one another as the Internet unit progresses—learners share free resources they have found, they share happy experiences in connecting with family and friends not physically in the Ottawa area, and they ask about researching and locating other resources or support available beyond what they have already accessed.

3.4 Carefully Established Learning Environments

iSisters believes that the most effective programming for women in need is delivered to small groups of learners in a relatively comfortable setting – that is, a setting which does not present any new social barriers, even though, of course, substantial gaps in current technology and employability requirements do exist. Cunningham discusses the idea that "education of adults is a social activity… and is today, a contributor to social transformation" (p. 40). iSisters strives to encourage the notion of lifelong

Carefully Established Learning Environments

- effective small class programming
- sustainable and safe learning centres
- experiential approach
- power in the class

learning as a means to attaining brighter futures for all participants (Collins, 1998, p. 52; Competing, 2006, p.1; Saunders, 2007, p. 4). On a broader level, iSisters' learning centres are designed to be sustainable, and as learners seek clarification from one another not just from the instructor, peer-to-peer networking or collegiality is encouraged, thus emphasizing the benefits of collaborative rather than competitive learning (Finger, 1995, p. 117). Further, the Conference Board of Canada, under the Employability Skills needed to "get, keep and progress on a job", identifies academic, personal management, and teamwork skills as critical. Teamwork skills include the ability to "work with others;… understand and work within the culture of the group;… [and] respect the thoughts and opinions of others in the group" (Employability Skills).

Throughout the literature, there is substantial evidence that adult learners need to learn in safe environments. Butterwick and Selman (2000) research this idea in the specific context of a popular theatre project, but the findings carry broad implications for other community-based learner-centered forums (p. 60). For learners to gain confidence in their ability to learn, adult learning settings must veer away from the high school model, which for many marginalized adults recalls a setting where they have experienced failure. In another research activity, 'Life Skills Training for 'the Excluded'', Butterwick discusses the need for a new model:

> the experiential approach in which the classroom became a kind of living laboratory; that is, the lived reality of participants was a key part of the curriculum, making it relevant and meaningful to learners. Another important element was skills practicing within and outside the classroom with peers and with the family (p. 3).

It is with direct relation to the multi-dimensional aspects of adult learning settings that Brookfield (2001) advises all adult educators to review Foucault as this will help them "recognize the presence of power in [their] daily practices… [and that] power is omnipresent: etched into the minutiae of everyone's daily lives, and exercised continually by those whom critical theory usually describes as the masses" (p. 3). Power is not one-directional in the classroom; moreover, each new group of learners develops a unique power and dynamic in its interaction with each instructor. Of course, Brookfield (2001) also alerts adult educators to be cautious of the unspoken power they wield in the class. Learners in the iSisters' fold are already highly vulnerable, and to this end, instructors strive to be particularly cautious in the use of non-verbal "nods, frowns, eye contact,… sighs of frustration or pity" (p. 22).

3.5 Technology and Employability Training: Now and in the Future

In designing an appropriate curriculum, iSisters continues to follow best practice for technology learning and training as outlined by ISTE-NETS, as well as the guidelines for employability as outlined by the Conference Board of Canada. Many of the technology related performance indicators are embedded in iSisters' programs; such as:

Technology and Employability Training: Now and in the Future

- best practices ISTE-NETS and CBC
- performance indicators
- online training
- power in the class

1. Creativity and Innovation
   Students apply existing knowledge to generate new ideas, products…
2. Communication and Collaboration
   Students use digital media and environment to communicate… to support individual learning and contribute to the learning of others… develop cultural understanding and global awareness by engaging with learners of other cultures…
3. Research and Information Fluency
   Students apply digital tools to gather, evaluate, and use information…
4. Critical Thinking, Problem Solving, and Decision Making…
5. Digital Citizenship…
   Students advocate and practice safe, legal, and responsible use of information and technology… [and] demonstrate personal responsibility for lifelong learning.
6. Technology Operations and Concepts…
   Students… select and use applications effectively and productively… (ISTE – Students).

The key skills identified in the Employability Skills 2000+ document as posted on the Conference Board of Canada Website suggest that people need three groups of skills: i) Fundamental Skills, including the ability to communicate, manage information, and think and solve problems; ii) Personal Management Skills, including the ability to demonstrate positive attitudes and behaviours, be responsible, be adaptable, and learn continuously; and iii) Teamwork Skills including the ability to work with others. Each iSisters' course incorporates the teaching and practice of these skills to ensure learners graduating from an iSisters' course have an enhanced technology competency, as well as a broader set of desirable employability skills.

As for the future, iSisters anticipates integrating more online teaching. Although currently online activities are delivered in conjunction with classroom-based learning and always with an instructor on hand, discussions about full online learning have been raised. iSisters will have to tread cautiously in the direction of full online delivery, as some other studies indicate there

are negative online behaviors that develop in asynchronous learning (Meyers, 2006). Meyers' study is interesting on multiple planes, not just for the future of iSisters in terms of expansion consideration, but also in the sense that the study looked at mature-aged women, and many of iSisters' learners fit such a description.

3.6 Participatory Evaluation: The Methodology

One of the problems generally associated with traditional evaluation methods is that it is something done *to* rather than *by* the people involved in the evaluation. That is, being evaluated can be seen as a process detached from the very people it purports to serve. Thus, when the idea to evaluate iSisters' technology mentoring and employability skills programming was first conceived, it was recognized that an evaluation that fits the unique nature of the iSisters' program environment was required. It was clear from the nature of the clientele that participants would not lend themselves well to a 'top-down' approach for the evaluation. As such, a participatory evaluation methodology was deemed most appropriate for the project.

Participatory Evaluation

- done by the people involved
- collaborative approach
- learning process for participants involved
- extension of stakeholder-based model

According to Health Canada (1996), participatory evaluation is a collaborative approach that builds on strengths of participants, and the contribution of everyone involved in the study. In contrast to traditional evaluation methods, participatory evaluation is a formal, reflective process controlled by the community itself as part of their own development and empowerment (Patton, 1990). One of the main objectives of participatory evaluation is to create a learning process for the program participants that will help them reach desired goals (Greenwood and Levin, 1998).

It is through this process of self-assessment, collective knowledge production, and cooperative action that stakeholders participate substantively in the identification of the research questions, the design of the evaluation, and the collection and analysis of data (Papineau & Kiely, 1996).

Further, Cousins and Earl (1992) note that participatory evaluation is an extension of the stakeholder-based model of evaluation, with a focus on enhancing evaluation utilization—particularly the effects of participation on the use of research and on the use of disseminated knowledge. Their research on organizational learning provides theoretical support for participatory evaluation stemming primarily from the view that knowledge is socially constructed and shared by organization members. Essentially, by actively participating in the evaluation process, program participants are better able to understand and use the findings from the evaluation.

4. Methodology

4.1 Program Evaluation Design

Initial Design

The iSisters' program evaluation was undertaken in order to evaluate the impact and sustainability of iSisters' community-based technology-enabled employment support programs. To this end, iSisters had proposed designing a data collection tool which would be completed by each learner as the course finished, independent of specific partnership. The design of this tool was based on a simple single page exit survey that iSisters had been using with learners just by way of having learners reflect on the value of the course taken; this original one-page exit survey closely mirrored a similar one-page intake survey to establish learners' technology and employability skill set, both within their own minds and for the benefit of the instructor.

Originally, three partner organizations were going to participate in this project: Youville Centre, Tungasuvvingat Inuit (TI), and Immigrant Women Services Ottawa (IWSO). Learners from all three of these community partner organizations were going to complete the online survey in an ongoing fashion (as learners completed courses), while the partner teams from each of the three organizations were to be involved in formal evaluation discussions. The project team was going to use this combination learner-based and site partner research to answer: i) what was the impact of iSisters' community-based employment support programs on program participants' employability and technology skills; and ii) what factors impacted most on building sustainable programs with iSisters' community-based partner organizations.

Finally, because the partnership with IWSO had attracted new community interest, iSisters also intended to extend the program beyond teaching technology and employability skills plus providing mentoring, to include work placements as organized through Adecco (employment agency).

Figure 2. Program Evaluation Logic Model for Methodology

Initial Design	
Data Collection Tool	**Target Group**
Online Survey	IWSO TI Youville
Learner Interviews	All groups
Partner Interviews	IWSO TI Youville
Workplace Placement Evaluations	IWSO

Final Design	
Data Collection Tool	**Target Group**
Online Survey	IWSO Cornestone Youville
Learner Interviews	IWSO (level 2 learners)
Partner Interviews	IWSO Youville
N/A	

Final Design

The purpose of the program evaluation has remained unchanged; iSisters continues to be very interested in the impact and sustainability of community-based technology-enabled employment support programs, both for our own learning journey, as well as to provide a replicable and scalable approach to other non-profit organizations. Historically, iSisters has collected data from exiting learners via a simple one-page evaluation form which closely paralleled the intake form. For this project, however, we designed an extensive online survey tool, and were very satisfied with that more elaborate approach to gathering data on our learners. Preparing the tool in an online format added a validating dimension to examining and assessing the technology skills our learners were acquiring. Next, the broader questioning (using Likert scales and other probing questions) allowed us to gather more information about the learners themselves. In addition, through this extended online tool we deepened the questioning related to the impact of the programming on learners' use of technology and their increased employability skills. Finally, the survey concluded with a section of open-ended discussion questions (see Appendix 3A).

Of the original three partner organizations scheduled to be studied in this project, TI has not been included. Between a limited data collection period coinciding with a physical relocation of TI, iSisters was unable to contact program graduates to return to TI and complete the surveys. However, since iSisters started a new partnership with Cornerstone, some learners there did complete online surveys. In the end, the number of Cornerstone surveys was too few to be counted separately in this report, although in some of the composite answers, Cornerstone responses are included.

In approaching the formal community partner meetings, the iSisters' team developed a new tool: the iSisters Readiness Inventory (iRI). Although not originally intended as a deliverable, the iRI has in itself become a valuable product and has already been incorporated as a preliminary questionnaire for all potential partners (see Appendix 4). There has also been excited discussions about the replicability of this tool for other organizations involved in community-based partnerships.

Although the partnership with Adecco was designed to help place new immigrants into work sites, as the program with IWSO unfolded, it was clear that learners were not emotionally ready to be integrated into the workplace. Although the Adecco opportunity was not a good fit for IWSO learners, the opportunity to engage in a temporary job placement remains available to women who work through the iSisters' program on a case by case basis. Further, iSisters has worked with Volunteer Ottawa to provide an alternative option for women to gain work experience.

It was, however, clear that the learners at IWSO were eager for some enrichment opportunity after the initial technology and employability courses had been completed. In response to this, iSisters' instructors developed a second level course (addressing more advanced technology and employability skills) and initiated an increased use of volunteer teachers to deliver enough first and second level

courses to meet the demand at that partner organization. The intent was that through taking the second level course, immigrant women would gain additional skills that enhanced their confidence with technology and continued moving them forward regarding employment readiness. In light of this deepened content, the project team determined that some learner interviews would be useful. As stated earlier, the IWSO partnership attracted a lot of public attention, typically to the benefit of the IWSO learners. One very clear example of this was Dell Computers who approached iSisters about forming a partnership in order to provide specific workshops for IWSO clients, focusing on résumé writing, communication skills, interview practice and job searching skills to further prepare these women for the world of work. Although learners who participated in these half-day workshops were not invited to participate in the exit surveys, if attendance is any indicator, IWSO clients were exceptionally excited at this corporate level offering, and extra chairs had to be rolled into the lab to accommodate all the participants.

By contrast, at Youville, iSisters no longer teaches formal technology and employability courses, as the lab has been fully integrated into regular programming and, moreover, a technology-focused teacher was hired to support other staff. Thus, iSisters was asked to develop some additional special workshop style courses to address topics identified as interest areas for Youville students. Learners who participated in the special offering courses delivered by iSisters at Youville (such as, the weekend Adobe Photoshop workshop) were invited to complete the survey, as were learners who used the lab as a regular component of their education at Youville.

Impact of changes on the evaluation

As a result of these modifications, the evaluation research scope did not include an evaluation of the experience of Inuit women participating in the TI program or the temporary work placements within iSisters' IWSO program. However, the experience of IWSO women who participated in the second level course was included in the evaluation's scope. Notwithstanding the modifications mentioned above, all elements described in the original proposal and the corresponding timeline remain the same.

Research Approach: Participatory Evaluation Design

Ultimately, the research approach to determining the effectiveness of iSisters' programming is based on a quasi-experimental, mixed methods approach, very much involving the key actors, and based on guidelines of participatory evaluation as summarized in Table 1 below. Both qualitative and quantitative data were gathered using the web-based exit survey and face-to-face interviews with program participants and partner organizations.

Table 1 Principles of Participatory Evaluation

- Participatory evaluation focuses on learning, success and action.
- The evaluation must be useful to the people who are doing the work that is being evaluated.
- The evaluation process is ongoing and includes ways to let all participants use the information from the evaluation throughout the project, not just at the end.
- Recognition of the progression of change - knowledge, attitudes, skills and behaviour - is built into the evaluation.
- The project sponsors are responsible for defining the specific project evaluation questions, the indicators of success and realistic timeframes.
- Participatory evaluation makes it possible to recognize shared interests among those doing the work, the people the work is designed to reach, the project funders and other stakeholders.

Source: Guide to Project Evaluation: A Participatory Approach Population Health Directorate Health Canada August 1996

While there were several possible approaches to evaluate the iSisters' program, the participatory approach seemed to be the most consistent with the goals of the project. In short, the evaluation was designed to meet the objectives of i) evaluating the effectiveness of iSisters' programming; ii) empowering stakeholders who became involved in designing and implementing the evaluation; and iii) fostering the utilization of findings for program planning and improvement. One of the main advantages of this participatory evaluation design was the instrumental and conceptual uses of the evaluation's results to improve iSisters' programming and to empower partner organizations in their capacity building efforts (i.e., developing the partner readiness inventory and the final recommendations, respectively).

4.2 Data Collection Tools

Online Survey

Quantitative data was gathered using the web-based exit survey (Appendix 3A), which was based on question items that were aligned with program outcomes for employability and technology skills. The survey consisted of closed questions, partially closed-ended questions, and open-ended questions. The online data collection tool was designed and tested prior to implementation.

The survey probed perceptions on improved skills as well as altered attitudes as concerns technology and employability. Ideally, the survey was intended to be completed on the last day of a given program, but in the case of Youville, learners completed the survey long after completing their courses. All participants agreed voluntarily to participate; there were no penalties for choosing not to participate. (See Appendix 2A). Eight key determinants of the impact of the iSisters' program were included in the web-based exit survey as outlined in Table 2 below.

Table 2 iSisters' Key Determinants of the iSisters Online Survey

i) demographics of the participants	ii) self-efficacy perceptions with technology knowledge & skills (e.g., keyboarding skills)
iii) employment status	iv) attitudes toward participation (avoidant vs. enthusiastic)
v) education level	vi) time frame logistics of program (e.g., too long, short, just right)
vii) marriage status	viii) overall satisfaction ratings

Learner Interviews

The purpose of the group learner interviews was to explore more deeply some of the findings from the web-based exit survey and to make note of any enhanced benefit of taking a second level iSisters' offering. A discussion guide was developed in order to facilitate the discussion during the group learner interviews (see Appendix 3B), and was vetted through stakeholders to ensure content and validity of the questions. All participants were invited to participate and signed consent forms indicating agreement to be part of the research; there were no penalties for choosing not to participate (see Appendix 2B).

The participant or learner interviews were grouped into two sections and reflected groups of students from two different instructors. The interviews focused on six probes as outlined in Table 3 below.

Table 3 iSisters' Key Probes of the iSisters Learner Interviews

i) altered technology skills and associated perceptions/use broader	ii) continued lifelong learning or work benefit: more education, more technology use, network
iii) strongest lasting impact of course taken	iv) changes you would like to see for future offerings
v) incentive, support, accessibility of course	vi) other comments

Partner Interviews

An additional qualitative data collection tool was developed for the partner interviews (see Appendix 3C). The partner interviews were integral for investigating the second main research question on sustainability of iSisters' programming by providing data related to capacity building within the partner organizations. Interview protocols for the partner interviews were vetted using a process similar to the learner interview protocols. Moreover, partners were invited to participate

and signed consent forms indicating agreement to be part of the research; there were no penalties for choosing not to participate (see Appendix 2C)

As noted earlier, the iSisters Readiness Inventory (iRI) was developed during this research project. While not an intended deliverable in itself, the iRI was a valuable by-product of the project which will be useful for identifying and classifying future partnerships (see Appendix 4).

The partner interviews were conducted individually with two of the organizations included in this project. In each case, attendance included the partner organization's executive officer, as well as the organization's key person responsible for enrolling appropriate learners in the iSisters' courses. Partner interviews occurred with IWSO and Youville;TI did not respond soon enough to be included in this report, and the program at Cornerstone is too early in its development for the depth of the questions. The interviews focused on six probes as outlined in Table 4 below.

Table 4 iSisters' Key Probes of the iSisters Partner Interviews

i) challenges to securing a dedicated instructor	ii) successes and challenges related to sustainability in connection to the lab and program offerings
iii) continued need for iSisters' presence	iv) steps taken to ensure long-term sustainability as related to technology, funding and program integration
v) impact and feedback regarding iSisters' presence onsite	vi) other comments

4.3 Data Collection Procedure

Online Survey

Participant recruitment and data collection for the online survey was initially planned over two phases. The first target sample size was intended to be 50 participants, ideally composed of at least 15 clients from each partner organization (participant group). Unfortunately, after the first year of data collection the number of participants only totaled 30; this represented only 20 percent of all referrals to the partner organizations. Moreover, all the surveys completed in the first year were from IWSO clients; iSisters then extended the dates to access more learner participation.

a) IWSO – At IWSO, where iSisters is still actively onsite, it was a relatively easy process to have the instructors incorporate class time for completing the survey. In the expanded phase of the evaluation collection period, we asked learners who were taking a second iSisters' course to complete the survey again.

b) Youville – Youville had moved to the sustainable stage in their relationship with iSisters, which meant that gathering survey results was a bit more awkward. Since technology and employability skills were fully incorporated into regular Youville planning, the targeted survey participants would have found some of the questions confusing. iSisters also did not want to adjust the survey to address the specific situation at Youville, as that would have impacted on cross-partnership comparisons. Finally, upon further discussion with the partner, an incentive was organized for all potential survey participants, and a date was arranged for participants to be at Youville on a day when iSisters' support staff would also be onsite to answer questions related to the survey.

c) TI – TI was also in the sustainable stage of its relationship with iSisters; however, a further complication prevented any TI participants in this project. TI moved to a different portion of the city early on in this project, and regrettably the lab was not set up and functional until too late for inviting participants to complete surveys and have their results be included in this report.

d) Cornerstone – The Cornerstone partnership was launched in the fall of 2007, and it included a Professional Development component for its staff as the initial offering. Consequently, the number of learners who took surveys before we closed the survey was limited to the small number participating in the winter of 2008.

Face-to-face Interviews

Qualitative data was gathered from two separate learner interviews and two separate partner interviews, all of which took place in the spring and summer of 2008.

a) Learner Interviews – The learner groups involved 6-8 women from the IWSO program; the groupings were arranged by instructor and included only learners who had completed a second level course with one of the two instructors identified.

b) Partner Interviews – Both partner interviews consisted of 45 minutes with senior management at IWSO and Youville. Discussions delved into the issues related to building a sustainable model for programming and provided a formal opportunity for capturing reflections on the partnerships. Only these two partners were formally interviewed because of the complications related to TI and the newness of the program at Cornerstone.

4.4 Potential Harm, Privacy and Confidentiality

No harms and/or risks to participants were associated with participation in either the online survey or the face-to-face interviews. Anonymity of the research participants was assured via coding procedures, and for tracking purposes, first and last names of participants were collected from the surveys. However, during the analysis phase, data was stripped of names and coded so that identification of individual participants was impossible.

The analysis of results included a between groups comparison on the outcome variables; therefore, the confidentiality of data was a concern where participation rates were low (i.e., Cornerstone). As a precautionary measure, group comparisons were not conducted using data which included fewer than 10 participants, and analysis was aggregated across groups, or limited to groups with sufficient participation wherever possible to protect the identity of participants.

4.5 Informed Consent

The research was conducted with adult women over the age of 18; therefore, no permission from parents and/or guardians was required for participation. Further, it was assumed that a client's participation in the partner organization's programs subsumed any special permission that would be required to take part in the iSisters' study. Since contractual agreements between iSisters and partner organizations did not include any special consent to participate in a program evaluation, all participants were provided with a clear purpose statement and consent was gathered from each participant. Participation in both the online survey and interviews was completely voluntary; clients who chose not to take part in the survey were assured that their involvement with the iSisters program or the partner organization would not be negatively impacted. Wherever possible, the survey was completed during class time and no specific compensation was offered for taking part. Standard informed consent procedures that required each participant to read an informed consent letter outlining the purpose of the research were used. In the case of the online survey, the participant was required to read the purpose of the survey before clicking on a radio button agreeing to the purpose and use of the research (see Appendix 2A). Similarly, prior to all the interviews, learners and partner organization managers were all provided with letters explaining the purpose and intended use of the research; thus, hand-signed consents were gathered for all interviews, as well (see Appendices).

5. Results

5.1 Quantitative Results from the Online Survey

The survey was created in Survey Monkey. Appendix 3A contains the screen shot captures of the survey as participants see the pages online. Although efforts were made to provide support for learners as they completed the surveys, it should be remembered that not all learners feel comfortable revealing their weaknesses in reading and comprehension, choosing rather to guess at the meaning of a question or to skip it. It is also important to note programs varied in length (8-12 weeks, generally, although there were some shorter workshops). Additionally, different instructors have been involved in delivering iSisters' technology and employability training, as well as specialty workshops, and frequently learners did not specifically recall who had been responsible for teaching the course. This reveals an interesting truism: although program providers are typically very clear about funding and design origins, learners are more interested in participating in a course and learning. Finally, it should be noted that some surveys were completed immediately upon exiting the program, while other surveys were completed with a few months to a year delay.

Following each of the specific sections, screen captures of the charts generated based on the Survey Monkey data have been included; these items are labeled 'charts' as distinct from summary 'tables' used throughout the entire report.

5.1.1 Demographic Results

The first nine questions related to the learner demographics. The learner identified her name, the program and year of participation, her current employment status, her highest level of education completed, the languages spoken at home, her marital status, and the situation with respect to spousal support and young or elderly dependents.

Response Rates – A total of 96 participants responded to the online survey. More than half the respondents were from IWSO (58%), whereas a smaller proportion of participants were from the Youville and Cornerstone programs (i.e., approximately 32% and 10%, respectively). As identified above, TI was included in the original evaluation plan; however, their participation was withdrawn due to logistical issues. An additional 20% of respondents did not indicate in which program they had participated. The majority of respondents indicated that they participated in an iSisters' program in either 2006-2007 or 2007-2008 (n=41 for both years); however, two respondents indicated that they had participated in an iSisters' program in each of 2004-2005 and 2005-2006.

Chart 1

Please select the iSisters program in which you were registered.		
Answer Options	**Response Frequency**	**Response Count**
Cornerstone	9.9%	9
Youville Centre	31.9%	29
Tungaasuvvingat Inuit (Innuit Women)	0.0%	0
Immigrant Women Services Ottawa	58.2%	53
	answered question **skipped question**	**91** **5**

Language Spoken at Home – Overall, the majority of respondents spoke mostly in a language other than English. Given the nature of the program at IWSO, it is not surprising that most participants from that program responded that they spoke at home in a language other than English.
A significant proportion of respondents who indicated that they spoke only English at home were from Youville; whereas all three programs contributed to the category "I speak mostly in English and another language".

Chart 2

What language do you speak at home?		
Answer Options	**Response Frequency**	**Response Count**
I speak English only	33.7%	32
I speak mostly in English and another language	28.4%	27
I speak mostly in a language other than English	37.9%	36
	answered question **skipped question**	**95** **1**

Employment status – Overall, the majority of respondents indicated that they were unemployed but looking for work. However, when broken down by program, a different pattern emerged in the demographic data where approximately 30% of IWSO clients indicated that they were working either full-time or part-time, including working full-time at home. Nearly 60% of Youville respondents indicated that they were full-time students. Approximately one-quarter of Cornerstone clients indicated that they were unable to work.

Chart 3

What is your current employment status?		
Answer Options	**Response Frequency**	**Response Count**
Full time	8.3%	8
Part time (casual, on-call, seasonal)	13.5%	13
Unemployed but looking for work	32.3%	31
Working full-time at home	4.2%	4
Unable to work	11.5%	11
Other (please specify)	30.2%	29
	answered question **skipped question**	**96** **0**

Education status – In terms of highest level of education, the majority of respondents indicated that they had some high school (i.e., 34%). However, disaggregated results showed that approximately half of all Cornerstone and IWSO participants had attained at least some post-secondary education (50% and 56%, respectively). Another 23% of IWSO respondents had at least attained their high school diploma. In contrast, 86% of Youville participants had attained only some high school. Other types of education completed included i) diplomas in secretarial work; ii) upgrading in science; and iii) bookkeeping. Thus, education data also contributes to the differing pattern of demographic results. Specifically, IWSO and Cornerstone women were much more likely to have completed higher levels of education than Youville participants. (Inasmuch as women are only allowed to stay registered and active at Youville until the age of 21, this finding is again perfectly reasonable.)

Chart 4

What is the highest level of education you have completed?		
Answer Options	**Response Frequency**	**Response Count**
Some high school	33.7%	32
High school diploma	8.9%	18
Some post-secondary	8.4%	8
Completed post-secondary	16.8%	16
Other (please specify)	22.1%	21
	answered question **skipped question**	**95** **1**

Marital Status – Overall, marital status was relatively equally distributed between single and married respondents (approximately 35%). However, demographic profiles contrasted sharply when the groups were broken down by program. For example, 75% of Youville participants indicated that they were single/not married, whereas 56% of IWSO clients were married or common-law. Another 25% of Cornerstone and IWSO clients indicated that they were divorced. No respondents from Youville selected this latter category. (Again, regulations surrounding women at Youville may be a significant determiner of marital status, as funding support for new parents is more readily available for single parents.)

Parental Status – Overall, parental status was fairly evenly distributed between single parent households, two parent households and no dependents living at home (40%, 33% and 28%, respectively). Also, responding to a separate question, 90% of respondents stated that they did not have any other dependents (i.e., elderly parents, grandparents, aunts and/or uncles) living with them at the time they participated in the iSisters program.

Chart 5

What was your parental status when you participated in the iSisters program?		
Answer Options	**Response Frequency**	**Response Count**
Single parent household	39.4%	37
Two parent household	33.0%	31
No dependents (children) at home	27.7%	26
	answered question **skipped question**	**94** **2**

5.1.2 Access/Computer Usage and Attitudes towards Technology Results

Four short questions comprised these two sections which were used to determine whether or not participants accessed and used computers more frequently upon completion of the program, and if their attitudes towards technology shifted through the duration of an 8-12 week program.

Access to a Computer at Home – One of the more interesting findings in the survey was the large proportion of women who reported having a computer at home (i.e., 72%). And, after having participated in the iSisters' program, the majority of respondents (i.e., 36%) stated that they were using the computer almost every day. A large number of clients (33%) indicated that they were using the computer at home at least once per day, sometimes more. (Although not included in this report, it is worth noting that the intake surveys typically reveal lower usage rates of technology, than the exit survey shows; this occurs systematically across all iSisters' programs.)

Chart 6

If yes, how often do you use your home computer?		
Answer Options	**Response Frequency**	**Response Count**
Less than once per week	18.6%	13
2-3 times per week	12.9%	9
Almost every day	35.7%	25
At least once per day, sometimes more	32.9%	23
	answered question **skipped question**	**70** **26**

Computer Usage at Home – In terms of computer usage at home, results showed that the program impacted several different areas of respondents' lives. The largest impact was on communication (66%), which was defined as sending/receiving e-mail or live and instant chat messaging. When it comes to computer usage, 57% of respondents indicated that they used the computer for leisure activities, such as i) playing games; ii) surfing the Internet; iii) downloading pictures; iv) listening to/accessing music; and v) watching/accessing movies. Another large proportion of respondents (i.e., 45%) indicated that they used the computer for school-work and/ or paid-work. Although nearly three-quarters of the participants indicated they had a computer at home, just over one-third of respondents accessed the lab outside of scheduled school hours (a question posed in the program perception section).

Attitudes Toward Technology – Overall, attitudes toward technology were positive with over three-quarters of respondents strongly agreeing that technology is important in both the world generally, and more specifically, in the workplace today. Perceptions about technology were slightly lower; however, more than half the respondents (i.e., 55%) indicated that they liked technology.

Chart 7

Please rate the following statements regarding technology on a scale of 1 to 5.								
Answer Options	**1 disagree strongly**	**2 disagree somewhat**	**3 neutral**	**4 agree somewhat**	**5 agree strongly**	**N/A**	**Rating Average**	**Response Count**
I like technology	2%	2%	16%	22%	52%	1%	4.28	95
I think technology is important in the world today	3%	0%	3%	13%	74%	1%	4.67	94
I think technology is important in the work place today	3%	0%	4%	15%	72%	1%	4.63	95
					answered question **skipped question**			**96** **0**

5.1.3 Program Perception Results

There were eight questions which addressed elements such as the pace and length of the course. In considering the value of the course, participants were asked if they would recommend the course to a friend and if they would sign up for another iSisters' course. Participants were also asked to comment on course add-ons, such as additional open lab times, the inclusion of guest speakers (if relevant) and the removal of barriers, such as including child care and transportation subsidies. The results can be summarized as follows:

- When asked about the pace of the iSisters' program, 95% felt that it was just about right; whereas in the next question about program length, almost 30% felt that the program was too short.
- Respondents overwhelmingly indicated that they would either recommend the program to a friend or take another iSisters' course if offered (91% and 87%, respectively).
- As guest speakers were not engaged for all courses, it is not surprising that 53% of respondents found the guest speakers valuable, while 44% indicated 'don't know'.
- Over two-thirds of the participants did not access the computer lab outside of regularly scheduled classes, but given the number of respondents who had indicated they had computers at home (72%) this number is not overly surprising.
- A large proportion of respondents accessed support services such as transportation or bus tickets (45%) and child care (35%) in order to remove barriers to participate in the iSisters' program.

Chart 8

How did you feel about the length of the iSisters program?		
Answer Options	**Response Frequency**	**Response Count**
Too long	2.1%	2
Just about right	70.2%	66
Too short	27.7%	26
	answered question **skipped question**	**94** **2**

Overall Satisfaction Ratings – Satisfaction ratings mirrored the program perception results in that over 82% of respondents indicated that they were satisfied or very satisfied with the iSisters' program.

Chart 9

Overall, how satisfied were you with the iSisters program?		
Answer Options	**Response Frequency**	**Response Count**
Very dissatisfied	3.2%	3
Dissatisfied	0.0%	0
No opinion	12.9%	12
Satisfied	37.6%	35
Very satisfied	46.2%	43
	answered question **skipped question**	**93** **3**

5.1.4 Program Impact Results

The program impact portion is very important for ensuring iSisters is delivering relevant material and helps in planning future program direction. Again, iSisters' courses are heavily informed by the employability skills listed by the Conference Board (Appendix 5) and the technology skills outlined by ISTE-NETS (Appendix 6).

Employment Following Graduation – Results from the survey were somewhat encouraging with respect to finding employment following graduation in that nearly 15% of participants (n=13) stated that the iSisters' program helped them to find a job. Of these, the majority were able to find employment within 90 days, and the remainder were able to find employment within 6 months of graduating from the iSisters' program. To be sure, the majority of participants (i.e., 90%) indicated that they were still looking for work; however, a large proportion of these respondents (almost 1/3) indicated that the iSisters' program stimulated their taking either a co-op placement or another course (i.e., adult high school).

It is worth noting that the research team debated this set of questions extensively. Since many of the learners completed the survey immediately upon completion of an iSisters' course this specific question may appear premature. Still, several learners have returned for second level or specialty course offerings through iSisters and these women have had a longer opportunity to be looking for work. Finally, there was also some debate centred on not including 'A new volunteer position' as one of the possible work-related, beneficial outcomes of taking a course.

Chart 10

The iSisters program helped me find:		
Answer Options	**Response Frequency**	**Response Count**
An employment opportunity	14.4%	13
A co-op placement	4.4%	4
Another course (i.e., adult high school)	26.7%	24
Not applicable	50.0%	45
Other (please specify)	18.9%	17
	answered question **skipped question**	**90** **6**

Technology and Employability Skills – Several key determinants of technology and employability skills were included in the online surveys, and are summarized in Table 5 below according to average mean scores. As the range of answers was based on a 5 point scale, having all ratings come in at or above 4 is very encouraging. The break down of values was 1 = no help at all, 2 =not very helpful, 3 =neutral, 4 =some help, and 5 =helped a lot; participants could also chose from a sixth option of not applicable. As discussed, these items are aligned directly with the Conference Board of Canada's essential employability skills (Appendix 6) and ISTE-NETS' technology skills (Appendix 7).Given that the skills below have been mapped onto the curriculum focus of iSisters' in-class programs, they can be measured as an effective determinant of program impact.

Table 5 Key Determinants of Technology and Employability Skills

Technology Skills	Average Rating	Employability Skills	Average Rating
understanding of basic computer and/or program use	4.57	ability to recognize and respect diversity and individual differences	4.46
comfort in using technology	4.52	recognize one's own and others' good efforts	4.44
ability to locate, gather and organize information	4.36	feeling good about oneself and level of self-confidence	4.43
understanding of the acceptable use of technology	4.36	understanding of personal strengths and weaknesses	4.34
ability to use technology to write and be creative	4.34	ability to work as a part of a team	4.28
ability to communicate online	4.34	ability to give and receive feedback	4.27
attitude towards technology	4.30	ability to find ways to achieve goals and get the job done	4.20
understanding of the ethical, cultural, and social issues related to technology	4.29	ability to work independently	4.14
ability to evaluate online content	4.26		
ability to use technology to solve problems	4.12		

Overall, average impact ratings were higher for technology skills than for employability skills; however, program impact results by skill area still averaged well above 4 on the 5 point scale, and can be summarized as follows:

Technology Skills

- The largest impact was on respondents' understanding of basic computer use, followed by comfort in using technology (i.e., 63% and 59%, respectively).
- The majority of respondents also indicated that the program had a positive impact on their i) understanding of the acceptable use of technology (55%); attitudes toward technology (54%); and iii) ability to communicate online (53%).
- Approximately 51% of respondents acknowledged that the program helped a lot with their ability to locate, gather and organize information, and to use technology to write and be creative.
- On softer skills, such as understanding ethical, cultural, and social issues related to technology, 50% indicated that the program helped a lot.
- The program had the least impact on the ability to evaluate online content (44%) and to use technology to solve problems (42%).

Chart 11

Please rate how the iSisters program has helped you with the following technology skills:								
Answer Options	1 no help at all	2 not very helpful	3 neutral	4 some help	5 helped a lot	N/A	Rating Average	Response Count
my comfort in using technology	0%	0%	10%	21%	54%	7%	4.52	92
my understanding of basic computer and/or program use	0%	1%	8%	18%	59%	7%	4.57	93
my ability to locate, gather and organize information	0%	2%	12%	24%	47%	7%	4.36	92
my understanding of the ethical, cultural, and social issues related to technology	1%	2%	14%	21%	45%	8%	4.29	91
my understanding of the acceptable use of technology	1%	2%	14%	16%	51%	9%	4.36	93
my attitudes toward technology	2%	3%	12%	17%	49%	8%	4.30	91
my ability to use technology to write and be creative	0%	2%	13%	23%	45%	6%	4.34	89
my ability to communicate online	1%	2%	13%	19%	48%	9%	4.34	92
my ability to evaluate online content	0%	4%	11%	26%	40%	9%	4.26	90
my ability to use technology to solve problems	0%	6%	16%	22%	38%	8%	4.12	90
						answered question skipped question		93 3

Employability Skills

- The most significant response came with 59% of respondents strongly agreeing with the statement that, as a result of the iSisters program, they recognize and respect diversity and individual differences. Recognizing self and others' good efforts followed closely at 58%.
- Of particular note was the area of self awareness and self-confidence which also showed a large impact (i.e., 55%), as did understanding personal strengths/weaknesses (52%).
- The ability to give and receive feedback as a result of having participated in the iSisters program was strongly agreed to by 48% of the participants.
- The areas of lowest impact were i) the ability to work independently (47%) and ii) the ability to find ways to achieve goals and to get the job done (46%).

Chart 12

Please rate the following statements about yourself as a result of having participated in the iSisters program.								
Answer Options	1 disagree strongly	2 disagree somewhat	3 neutral	4 agree somewhat	5 agree strongly	N/A	Rating Average	Response Count
I feel good about myself and I am more confident	0%	3%	8%	24%	51%	6%	4.43	92
I recognize my own and others' good efforts	1%	0%	12%	20%	53%	6%	4.44	92
I am better able to work independently	1%	6%	16%	20%	43%	6%	4.14	92
I am better able to work as a part of a team	1%	4%	11%	23%	46%	6%	4.28	91
I am better able to find ways to achieve goals and get the job done	0%	6%	12%	25%	41%	5%	4.20	89
I better understand my strengths and weaknesses	0%	1%	17%	20%	48%	6%	4.34	92
I recognize and respect diversity and individual differences	1%	2%	8%	20%	54%	6%	4.46	91
I am better able to give and receive feedback	0%	4%	13%	23%	44%	7%	4.27	91
						answered question skipped question		92 4

5.1.5 Differences by Program

A major focus of the evaluation was to determine whether or not the program had a differential impact on women participating in different programs. As such, standard 5 point Likert Scales were developed to determine relative measures of program impact on each item; however, in order to obtain a global measure from each of these domains, composite scores were created by combining key determinants from each skill area. Global composite scores were then compared using t-tests for each program group in order to determine if there were any statistically significant differences in participants' perceptions in IWSO compared to Youville. The Cornerstone group had too few respondents to perform the ANOVA as originally planned.

Technology Skills – Table 6 below shows that overall mean scores for technology skill ratings were higher for the IWSO program when compared to the Youville program (43.6 vs. 28.2). In fact, t-test results indicated that the difference between the two groups was statistically significant $t(33) = 5.3$, $p < .5$. That is, IWSO respondents scored significantly higher than Youville Centre on the impact of the iSisters program on technology skills. Once again, it is worth remembering that the average age of Youville participants is significantly younger, and these learners are typically Canadian by birth and, therefore, more familiar with technology generally than the IWSO learners.

Employability Skills – The difference between the two groups on employability skills was also statistically significant $t(36) = 3.1$, $p < .5$. Specifically, mean scores were higher for IWSO than for Youville on the employability skills composite score (33.9 vs. 25.9). Interestingly, variability on both measures was much greater in the Youville group when compared to the IWSO group. In fact, the difference in standard deviations between the two groups was more than 10 on technology skills (6.5 vs. 16.5), and approximately 6 points higher for employability skills. These results suggest that IWSO respondents were more homogenous in their perceptions, while Youville clients were much less consistent in their ratings.

Table 6 Program Impact by Skill Area and Program Partner

Skill Area	Program	N	Mean	Std. Deviation
Technology Skills	IWSO	39	43.6	6.5
	Youville Centre	28	28.2	16.48
Employability Skills	IWSO	40	33.9	7.3
	Youville Centre	27	25.9	13.6

5.2 Qualitative Analysis from the Online Survey

The final section of the online survey included 6 open-ended boxes which encouraged participants to talk about the program. The responses varied dramatically in content, detail, and clarity; several of the learner comments are included in call-out boxes; these items are labeled 'call-out comments' as distinct from summary 'tables' or Survey Monkey 'charts' identified elsewhere in the report. (Although most spelling has been corrected in the comments for understandability, sentence structure remains as entered by the learners.)

5.2.1 Comments Regarding what Learners liked Most about the iSisters' Program

- When asked what they like most about the iSisters' program, the majority of respondents noted that they liked learning about either technology or employability skills (i.e., computer and office skills);
- Another large proportion of respondents liked the helpfulness of the instructor, referring specifically to the small classroom environment which allowed the teacher to be more responsive and answer their questions promptly.

"It provided me with all the basics…and all I wanted to have in my first step in program. It removed my fear of using it and gave me a confidence. The teacher was wonderful and so helpful. The way she teaches made easy to follow and learn more and more."

"I like very much the computer class, the teacher is very friendly, patient and I appreciate a lot how she teaches us. I like also how iSisters program consider that Technology is very important in the world and organize some trainings like this one."

"Small group with people I knew. Teachers were open, friendly, and informative."

5.2.2 Comments Regarding Improvements to the iSisters' Program

- In terms of improving the iSisters' program, the majority of respondents indicated that the program and/or class length was too short, and suggested that it should be extended so that they could have more learning opportunities, and more time to practice what they had learned. This information is consistent with the results obtained from the questions measuring program length, where nearly 28% of respondents felt the program was too short.
- Other respondents felt that increasing accessibility to the program would be an area for improvement. In fact, over 70% of respondents indicated that they had used either transportation support or child care services as a means to access an iSisters' program. Thus, the removal of barriers to iSisters' programming continues to be a challenge for a significant proportion of clientele, and an area that should be maintained.
- The majority of respondents indicated that they were interested in learning more about computer software related to the office and personal use including more related to Microsoft Office (e.g. Excel or PowerPoint) or Adobe Photoshop for picture manipulation. Participants expressed that having extra training in general would be particularly useful. Comments about not learning enough overall, as well as in these other areas reinforced earlier comments that the program length was too short.

"It wasn't long enough. It was only in the afternoon of the day, and it didn't give us enough time to learn everything properly."

"I did not like the fact that it was just once a week for the number of weeks we did it. I will appreciate it if the duration of the course is increased. Thank you."

"I would have liked more time to practice and go forward with advanced studies."

"By increasing the duration of the Course. Also, by providing Bus tickets for the Students that might need them. Thank You very much!"

5.2.3 Comments Regarding the Most Valuable Thing Learned from the Program

- Several anecdotal comments regarding the value of the course were specifically related to the main technology and/or employability skills targeted by the iSisters' program. For example, many respondents found that the course made them feel more confident with learning technology (employability skill), while other respondents indicated technology skills, such as the ability to communicate online, were more valuable.
- Still other participants noted that a combination of valuable skills directly related to the main objectives of the course both measurable and soft were attained,i.e., the ability to recognize and respect diversity and individual differences, and the opportunity to develop a better understanding of the ethical, cultural, and social issues related to technology..

"To not be afraid of the computer and to enjoy the knowledge that comes with working daily on the computer"

"I learned how to send and receive E-mails. I also learned how to browse through the Internet."

"About computers in English, and to meet other immigrants who came from different culture."

5.2.4 General Other Comments Regarding the iSisters Program

The majority of respondents expressed their appreciation toward the teacher, the program or the partner organization. iSisters received substantial praise for providing learners with a unique learning environment. Assorted learners noted that they felt that this model should be widely publicized so that others women could obtain access to similar programs; this comment was particularly interesting in light of the fact that the partners say there are so many women approaching them about courses that little separate advertisement needs to occur.

"I appreciate the organization that put together this program and recommend it for our women in the third world countries to benefit from it."

"Once I was in it I really enjoyed every class. The teacher was excellent, very patient and without second thought she always explains every question until we understand. I thank her for everything she has done."

"I felt iSisters was giving and caring and made everyone feel important. It is not only the teaching counts; it is also how we feel accepted and cared."

5.3 Qualitative Analysis from the Learner Interviews

Background about the Learner Interviews

The learner interviews were conducted with two distinct groups of learners; both groups were from the IWSO program. Both groups had completed a minimum of two iSisters' courses at IWSO; some learners had attended special additional technology learning opportunities, such as open lab times and/or the employability workshops offered by Dell. Moreover, to have a more diverse and learner-reflective response, the participants in each of the learner interviews were invited to participate based on having had different instructors. It is worth noting that the general learning atmosphere at IWSO is very highly engaged and very reflective of some of the most positive writings in the literature concerning women's ways of learning. The dynamic developed in each learning group was very powerful and deeply personal.

Throughout the regular teaching time, the instructors had met and interacted a few times, and each time they invited one another to sit in on classes and attend celebratory events such as course completions, the overall partnership between IWSO and iSisters was validated. The learners were very proud of their non-technology skills and were eager to share cultural individualities with their classmates. The social aspect of learning has always been significant in iSisters' courses, but it is possible that the newness and collective understanding of immigrant status added an extra dimension to the IWSO experience. Further, it is worth noting that once contacted, participants were eager to participate in the learner interviews, and that the participants all offered to bring some special contributions to a collective lunch, even though iSisters offered to have the meal catered.

Several themes emerged from the two separate learner interviews which took place in the summer of 2008, although the individual responses varied dramatically in detail and insights. The themes are summarized in the following paragraphs while some additional direct quotes are included in further 'call-out comment' boxes. (The comment boxes are authentic in that they are recorded as the ladies relayed the information.) Finally, a copy of the Participant Post-course Conversation Guide used at the interviews appears as Appendix 3B.

5.3.1 Successful Model for Building Capacity

One of the most important findings from the learner interviews was that partner organizations need to secure instructors who are sensitive to the unique nature of iSisters' clientele. Specifically, partners must be able to maintain a high comfort level in the classroom environment during the training of new teachers. This notion arose when one of the clients from IWSO went on to lead drop-in sessions after graduating from the program, and because many of the learners knew her already from other IWSO drop in activities, and from the actual class, she had no trouble in maintaining the comfort of the class as established by the original iSisters' teacher. This finding is very interesting in terms of developing a successful capacity building strategy for partner organizations (i.e., clients themselves might be good instructor candidates).

I took the drop-in class, and now I'm going to lead the drop-in class! It's wonderful for me. And I love my classmates in the school. Every problem they had, I helped teach them, because it was easy for me. I had a very good teacher.

Indeed, this underscores the mentoring focus of iSisters' philosophy, and bodes well for future success in developing a mentoring model. Specifically, a partner organization might consider securing a student from an existing class, and then, having the student (supported by the teacher) lead new groups after graduation. Even though TI did not participate in this program review, this mentoring model was followed with success at TI, as well; a former student was hired to lead classes and keep the lab open to many diverse learner groups. Thus, there is evidence for the effectiveness of the original instructor mentoring a student to be present in support sessions as a program objective.

5.3.2 Feeling Safe to Learn

As was noted in the results section, the social aspect of the iSisters' program is extremely important in terms of establishing a safe learning environment. The idea that vulnerable women are still able to thrive academically if in a safe social setting is consistent with the literature, as well. In fact, women who have experienced trauma are more receptive to learning once they can take down their self-defenses. What was not anticipated but was discussed in the learner interviews was that feeling safe to learn extends after hours into the lab component. Each iSisters' teacher carefully establishes a "safe" classroom setting where each client feels comfortable learning, asking questions, and being listened to.

I'm so happy to be part of this beautiful program…I'm so happy to know all of the wonderful people. I am also new here and I am lonely. We share problems and sometimes people's situations change – There's one student, her application is accepted now and I will bring a cake for to celebrate next time. I feel like I'm not alone with these ladies. I'm so happy to have good people around me. Everything will be fine.

5.3.3 How Disadvantaged Women Learn Best

The evidence from the learner interviews supports a strong organizational belief within iSisters that learning at its best must be supportive, with clear objectives but must also be fun. Research shows that women learn best in groups with other women with a tremendous amount of academic and social support. Among the long term objectives that iSisters incorporates in its courses is to build clients' confidence, self-esteem, and networking capacity. Indeed, these are specifically aligned with the course objectives in terms of employability skills. Novice learners in fragile emotional states (i.e., newcomers to Canada; women who are survivors of abuse; and/or those with income concerns or no family or social support) find it hard to trust another individual, particularly considering their pre-existing fear of dismissal and/or mockery with respect to a perceived lack of knowledge. A sub-aspect of this is the 'safety' of female teachers; although iSisters does have male volunteers and employees, regular ongoing employability and technology classes are instructed by females only.

I had a great time with great teacher, great students like classmates. I like it just organized by women. I feel comfortable, like regular ESL we used to have a mix of men and women, but this class is just women. So it's kind of more … sometime I am just a little bit rude. But I enjoyed this class.

5.3.4 Extension of Learned Technology Skills into Personal Life

Another major finding from the learner interviews was that once a certain level of comfort and familiarity with the technology had been developed and attained in the classroom, clients were willing to experiment with these skills in everyday tasks they confronted outside of the iSisters' class, within their personal lives (i.e., access the Internet independently, create and organize files in their own folders, download pictures from various peripherals and save to a USB or flash drive for easy portability, or try to access new online programs such as free Internet phoning [Skype]). For iSisters, this is a key determinant of program impact as it shows that participants have extended their learned technology skills into the home. Thus, these women are no longer dependent on others in the household (i.e., husbands/boyfriends/children) for these activities, and have learned the value of technology to improve their daily lives.

"I can speak with my friends back home -- with my sisters and my brother -- and it's easy for me. I do not feel far away from them. We are here in Canada and they are so far away -- it takes 24 hours to get there. And now with chatting and email, we sit together."

Anecdotally, this concern of dependency on others and trusting them implicitly has been voiced repeatedly. Learners have commented on children changing password access codes to the computer to prevent the adult/mother from seeing all that the children have been accessing online. After the unit on managing the desktop women know how to control and access password settings and after the Internet unit, they can retrieve historical records of sites visited—even if the woman doesn't remember all the steps, she knows where she can check for help and it can be with a teacher of

her choosing. Other learners who knew how to send an e-mail, were eager to set up a free account, as this would no longer be the name and password set up for them by their boyfriend, son or husband. Essentially, learners were eager at every step of learning. Some students knew how to add a picture to an e-mail, but didn't know how to save the picture to a USB or flash drive. Other students knew how to view attachments to e-mails or how to open a PowerPoint slide show, but did not know how to download pictures from a camera. Still other students were eager to stay after class to learn about setting up an instant messaging or speaking account, to be able to chat through text or live voice for free with family in other areas of the world. In many cases the women were dependent on family members for all these tasks prior to the iSisters course, or had not even realized such possibilities existed. Being able to ask questions in a safe, non-judgmental, all women class seemed to matter significantly to the learners.

5.3.5 Integrated Technology Use and Fear of Technology

During the interviews, some learners further demonstrated an understanding of integrated technology use in their ability to relate classroom knowledge to their lives. For example, swipe or touch screen technology use is not delivered as a formal lesson in an iSisters' course; however, learners were taught not to be afraid of trying new technologies. One of the program's major goals is to make learners feel less intimidated about trying things related to technology (i.e., touching user interface options will not break the computer), which for several learners is a simple yet novel concept.

"When I go to the bank, I use the computer to do my bankbook. And when I go to the clinic, they have a swipe machine to swipe my card and answer questions. I never did that before. I love to play, so the touch screen was fun. I have a digital camera and I like to take pictures. I put a picture as a (desktop) background on my computer. And I send pictures to my USB drive and send it to friends. It's great."

During the interviews, there were several examples of the extended types of technological learning experiences taking place in partner organizations. For instance, one client was able to take digital pictures on vacation and bring these back to her family using the USB. From an organizational feedback perspective this was the best possible endorsement of extension learning.

5.3.6 Increasing Learning/Job Opportunities

One of the core contentions iSisters holds is that under-employed and disadvantaged women need to learn how to use technology in order to advance their careers in Canada. In the case of immigrant women, iSisters' clientele are typically well-educated but short on technology skills, and by extension, Canadian employability skills. When asked about the lasting benefits they are experiencing from the iSisters' program one of the ladies stated the following:

"I hope to start soon at Algonquin College in the Nursing program, and I need more access and power to know more about computers. So I'm signed up for another course. Before, I used the computer once a month, and now I use the computer daily. I think it's important for everyone to know, not just me. Especially for immigrants, because they haven't had a chance in their countries to learn about computers, and now it's time to use it."

Again, anecdotally, there has certainly been evidence supporting the link between women taking an iSisters' course and then signing up to complete credits at an adult high school or registering for some college readiness courses or even accessing job opportunities. Various learners from Youville and IWSO have moved on to studies at Algonquin after completing their iSisters' course(s), and these learners are very proud of their forward movement, letting former instructors know the news often via modern technologies such as social networking sites (i.e., Facebook) or at reunion events.

5.3.7 The Employability Skill of Confidence

As was demonstrated in the analysis of the online survey earlier in this report, participating in an iSisters' program has an impact on clients' confidence levels which starts with getting familiar with computers and then evolves into a willingness to take on new things (i.e., other education opportunities). Again, this level of confidence was implied in the learner interviews where one student is now interested in nursing, representing a move into a more complicated field of study. One goal of iSisters is to stimulate interest in further levels of education by demonstrating that computer knowledge and familiarity is only a tool, not an end in itself. The fact that students are willing to register in further education opportunities is encouraging news for the organization.

I'm more confident with computers. If I make a mistake, I can correct it right away. Also, it's good for me because my daughter is 13, and she always says "I know more than you in English," but I tell her that I know more than her in English and in my language. (Laughter) I feel like I'm more comfortable using the computer.

5.3.8 Open Lab After-hours

The interviews revealed further support for what was already stated in the online surveys as related to lab use. Learners want more opportunities to acquire office-based technology skills and more time to practice their skills in a lab monitored by a trained instructor. Learners frequently stayed after class was officially finished or arrived early to practice keyboarding and other computer-related activities. The majority of learners interested in extended lab hours expressed a desire for a greater scheduling consistency and availability of the lab. The lab should be open on more regular days and times so that learners can book aside specific slots of time.

"For me personally, I prefer more time to practice, but this is specific for me because I'm very slow. I'm not perfect in English, and don't always catch things fast, especially with computers. And sometimes I come here (IWSO) for other reasons, and would like to use the computers, but it was closed. It would be nice to have the lab open to give people a chance to practice on the computer. A couple times, when I didn't have a computer at home, I came in here and it was closed, so I needed to go to the library or community centre which takes extra time. For me, just half an hour more with no teaching — just time to practice — would be great."

Thus, there is evidence to support the notion that computer labs located in partner organizations should be staffed with trained instructors outside of regularly scheduled classes. It is unreasonable to expect participants to know the intricacies of program funding; however, the reality is that funding is the responsibility of the partner organization. Unfortunately, partner organizations often do not have enough resources to keep the lab open beyond the hours iSisters opens it formally for classes or special sessions (see section on partner interview results). Moreover, the challenges related to opening the lab for additional hours are significant, as the onus for security and care falls to the partner organization when an iSisters' instructor or volunteer is not in the lab.

Open lab time has been planned and scheduled into each learner centre. As this report provides the first formal opportunity to assess the usefulness of an open lab time, historically, limited use of the labs has just been ascribed to inconvenient times. However, one of the learners who did access the lab outside of regular class noted during the interview that the lab environment did not have the same feeling of 'safeness' because the regular classroom teacher was not monitoring students during lab hours. Despite the fact that the lab monitor in that instance was a credentialed iSisters' volunteer, this comment requires further consideration.

iSisters recognizes the need to provide some more congruity between class and lab time and is investigating the implications for blocking time for the class teacher to run some of the open lab times. In fact, one of the major findings stemming from the evaluation is that clients who make the effort to come back to the open lab need consistency in their exposure to instructors and 'mentors' as they make forays into independent learning or practice. Consistency in teaching and learning styles is crucial to the comfort and progress of learners. Further, it is unreasonable to expect a different lab instructor to establish, or transfer, the rapport established by the classroom teacher. Women seek social opportunities and look for new friendships through safe introductions, and iSisters will continue to create a safe setting so learners can extend this sense of security and their social networks outside class.

5.3.9 Advertising iSisters' Programming

Another theme emerging from the learner interviews was the need to promote iSisters' programming to other community-based service organizations. From an organizational perspective, iSisters is concerned about advertising programs, particularly because the responsibility of organizing learners into class groups falls to the partner organizations, who in turn typically depend on word-of-mouth and simple

in-building posters to advertise programs such as those offered by related organizations (like iSisters) in-house. However, in the past there has rarely been a shortage of learners for each class despite the fact that enrollment and registration are an issue in the days leading up to any course start date, and attrition can be a problem. The dilemma of attracting truly "new" clients seems to be a big concern; clients who have already attended an iSisters' course are particularly keen to take a second course. Overcoming skepticism and misperceptions can also be a challenge in that some learners have historically had negative experiences with learning and are reluctant to voluntarily subject themselves to a repeat. Based on anecdotal classroom feedback, some students were highly skeptical as to the quality of programming that they were going to receive, inasmuch as the course was free of charge.

5.3.10 Cost of iSisters' Programming

As a not-for-profit organization well aware of its target market, iSisters knows that there is a need for technology and employability programming in the community, but the relationship between utility and cost of the program was a major finding that came out of the learner interviews. Learners revealed the level of control and restriction they dealt with at home in terms of ability to integrate and make a life in Canada; in several instances had there been a price on the course, the learner would not have participated.

I go to St. Nicholas Adult School for English, and they have some courses, but they cost $120 dollars. I want to take a basic course, but it is difficult because I don't work and don't have my own money. I ask my husband and he wants to know what the money is for and says I don't need to go to school. I would ask him again for the Level 2 course, and ask him to give me money again and again and he doesn't like that. Then I went to a community centre and asked some lady to help me find a course for free. She said to come back again in a week, and she did not find anything! So, I think if you advertise more, you will get a lot of people.

Although on occasion there have been casual discussions (from learners) about putting a nominal sum to the classes to encourage more consistent attendance and thereby overcoming any potential negative association tied to a "free" course, these interviews dispelled that thought entirely. In fact, this disclosure of spousal control and restriction to accessing learning emphasized the need to keep offering the program free of charge. Often the educational opportunities available in Canada are taken for granted or as a given, but clearly, for some learners the "freeness" of the course is what enables their participation in the course.

5.3.11 Congruency of Technology Skills in Other Organizations

Results from the learner interviews held some positive feedback for iSisters in terms of program effectiveness. One learner described having successfully completed a basic skills competency assessment from another organization, which effectively meant that she was exempted from the class because of her familiarity with computers. This feedback provides face validity for the iSisters' program in terms of learner outcomes being congruent with those offered in other technology skills/upgrading programs.

5.3.12 Programming Changes based on Feedback from the Learner Interviews

Learners provided some important feedback on the delivery models (i.e., extending the class to four hours), which iSisters has considered carefully. This extended class time model hasn't worked in the past; however, iSisters is considering re-visiting the longer time block for classes under a modified format. For instance if the course was advertised as 2 ½ - 3 hours of lesson time per week in addition to one hour built-in time to practice and develop personal goals related to the class lesson, it might be a workable format.

Other feedback in terms of logistics also emerged from the learner interviews; for example, in order to remedy the problem of finding the location of partner buildings iSisters will have maps printed with the partner poster.

5.4 Qualitative Analysis from the Partner Interviews

Background about the partner interviews

The partner interviews were conducted with senior managers at two of iSisters' partners – IWSO and Youville. In each case, the executive director and the frontline iSisters' liaison officer were present. The liaison contact is typically responsible for both determining appropriate program content for courses offered by iSisters on the partner site and for recruiting learners to participate in iSisters' courses. There is no expectation that the liaison contact will be the person to continue the technology and employability program at the partner site once the programs moves into the sustainable phase.

It is important to recall that the iSisters' model of partnership is based on a multi-year progression. In the preliminary phase, the partnership is defined, a program is planned and iSisters arranges equipment for the lab. In year one, iSisters designs and delivers a program to partner clients. (Most recently, at Cornerstone, the first recipient group was comprised of employees; this marked iSisters' first effort at professional development.) Throughout the year, iSisters and the partner engage in trying to secure funding for a dedicated instructor. In year two, team teaching should be occurring on site, and iSisters' presence should be reducing. By year three and onward, iSisters should only be onsite for occasional support or to respond to a new program request (specific niche programming such as a weekend session on photo manipulation.) Theoretically, this multi-year approach to partnerships allows iSisters to have several partners at any single point in time, although at no time has there been more than one partner in year one at the same time.

Several themes emerged from the two separate partner interviews which took place in the spring of 2008, and they are summarized in the subsequent sections. Some direct quotes from the partners are included in further 'call-out comment' boxes, and a copy of the Partner Interview Protocol used to guide the discussion is attached as Appendix 3C.

5.4.1 Challenges in Securing a Dedicated Instructor

Partners were asked to comment on the challenges they face in attaining sustainability with respect to securing a dedicated instructor for program delivery in the lab in terms of funding, teaching ability, technology and/or employability skills, and availability (i.e., full-time vs. part-time). Partners were also asked to comment on their professional development relationship with iSisters in terms of mentoring and/or training.

In general, the partner comments were favorable in terms of the sustainable principle of securing a dedicated instructor; however, it was clear that these organizations were, by their nature as not-for-profit agencies, constantly struggling in the face of challenges to obtain a full-time instructor due to funding and other barriers (i.e., immigration issues in the case of IWSO) which serve as a constant threat to their main goal of securing a dedicated teacher.

As for the suitability of the volunteer instructor we have, she is dedicated, she is willing, and she is ready to teach the program. In fact, she has a lot of skills in the technology area, having taught in this field for a number of years in her country. We are hoping that her immigration status will work through pretty soon, and she will be able to continue with us. On the flip side are the challenges I think we will face in the future--if this individual does not work out we have to find somebody else with the necessary skills and abilities to run the program.

Securing a dedicated instructor was described as a collaborative process at each iSisters' location. Still, the challenges faced by IWSO in this process are perhaps more indicative of challenges most iSisters' partners face in taking this critical step toward sustainability. Moreover, because of this site-based instructor challenge, iSisters finds itself on the partner site sometimes longer than originally intended.

In the case of Youville, arrangements were made through the Ottawa-Carleton District School Board to provide the appropriate teaching staff with the requisite knowledge base in technology, and to support the lab in terms of technology. Acting in an oversight role, the school board viewed the leadership placement at Youville as an opportunity to balance the needs of other alternative programs within the Board. Acquiring a dedicated non-iSisters' instructor in the lab has not always been this smooth with other partners. Still, once funding is secured, the instructor sometimes self-identifies as at TI, where one successful graduate became the instructor for a sustained period, and very recently, IWSO was fortunate enough to contract a graduate to lead onsite classes, as well.

5.4.2 The Importance of Integrated, Cross-curricular Professional Development in Technology

Since its inception, Youville has become the ultimate success story in terms of sustainability of instructors over the long term and integrated use of the lab by clientele. This partner noted the critical role of iSisters' support in providing professional development to instructors on site in terms of technology integration across the curriculum. In fact, targeted technology training delivered

to teachers in embedded social studies, English and Math lessons was considered an extremely important aspect of the Board's vision of Professional Development integrated use of the Youville lab.

In addition to the information technology aspects of the curriculum, we wanted to be technology friendly to support the entire curriculum, however, they chose to use it.

Interestingly enough, and quite independent of the Youville situation, iSisters has been developing a Professional Development (PD) initiative as part of the iTeachnology™ package, which specifically targets PD for partner organizations and new instructors so that they can be provided with longer lasting independent support, and develop a greater personal level of comfort with technology. As noted above, the first iSisters' professional development session which in fact used segments from iTeachnology™ was conducted with success at Cornerstone in Fall 2007.

5.4.3 Moving Towards a Sustainable Model of Access

The focus of Youville, as with IWSO, is not securing funding to support a particular program or new partnership, but rather, to deliver appropriate programming to learners based on client needs. As such, finding and supporting an employee responsible for the technological upkeep of the lab (i.e., updating software patches, maintaining effective anti-virus software, cleaning drives, running scans) is challenging for iSisters' partners. At one time IWSO shared their support person with eight other non-governmental organizations who were involved in immigrant employability and relocation support, and all located in the same building. Similarly, the individual at the Youville location had multiple jobs and thus was not available for full-time support. Nevertheless, IWSO has created a full-time staff position to oversee all their IT needs and specifically to monitor the lab and be responsible for the maintenance of technology.

We have an IT person on staff that at least for a year, we are able to call upon his service should anything happen in the course of the day. Even if he is alone, he's just a phone call away and he'll come in as promptly as he can to assist with that. In the building itself we are making a number of changes because we are expanding our services so a lot of things have been shifted at this time and that gives the man an opportunity to overhaul the entire system and the lab will be included in that. One of the challenges that we are going to face as an organization is to ensure that we have the type of resources necessary that allows us to continue the program. And we are determined to do that.

The partner interview at Youville revealed that teachers were given open access to the lab for staff professional development. The lab is by no means only for technology and employability training for partner clientele. The idea of sustainability and empowerment is that the partner takes control of the lab and initiates new uses for the machines and software housed there. At TI, for example, the lab was used for technology and employability training with men as well, and there was an after-school drop-in time where children were encouraged to use the lab for developing keyboarding, basic math, and basic reading skills. As part of the partnership agreement, the partner organization is expected to provide a women-only technology and employability course, and some

specific women-only open access lab times, but beyond that, partners are encouraged to use the lab as broadly as possible to serve the full community.

Thus, several important conclusions were drawn from the partners' descriptions of the successes and challenges they faced regarding issues related to moving towards a sustainable model of providing technology access and learning opportunities for clients. Partners have learned to cope with technology maintenance by using the resources—human and technological—available to them at any one point in time. Partners also noted that they relied on volunteers or summer students on grants to provide technological support. Based on the results from the interviews it seems that funding and personnel challenges threaten a sustainable model for computer lab maintenance in partner organizations.

Given the comments from learners regarding the importance of instructor consistency between the lab and classroom, and the value of the safe learning environment, this issue will be important in considering a sustainable model in future. Nevertheless, iSisters was reassured that partners take their responsibility about maintaining and updating the physical state of the lab seriously, and that they recognize the need to provide reliable and timely technical support to learners.

5.4.4 Ongoing Support from iSisters

A key determinant in building a sustainable model in partner organizations is creating a sense of ownership and contributing innovation in programming. However, a surprising result from the IWSO partner interview demonstrated clearly that they still rely heavily on the iSisters technology mentoring program for ongoing support, particularly in IWSO's quest to support immigrant women develop their skill-base for job-readiness. Further, the partner interview with IWSO demonstrated that technology skill development for new immigrants is a high priority and need. These results are consistent with the online survey that showed IWSO clients as being highly educated, but with limited job opportunities in Canada, and so they seek educational opportunities that enhance their employability.

We have realized that the [iSisters] computer program is a very, very important program and women are benefiting from it. We are getting calls from others who want to participate in this program. What we see is the need the women have. Many women who are coming to us are highly skilled, highly qualified but just don't have the computer skills that are necessary that will help them into the labour market into Canada. So some of them have gone through the job-search workshop, some of them have been in the lab downstairs, and recognizing that they need to upgrade or acquire these tech skills and so we see, we are talking about helping women to achieve their potential, helping women to take their places in the society. We need to provide the assistance that is related to technology that will help them. And therefore, we still need iSisters technology program that will help us because we are helping them; we help other women. No question that technology skill development for new immigrants is a high priority and need. If we close the door tomorrow, I think a lot of people would be hurt by it. The women are benefiting from it.

This notion of ongoing support also emerged at Youville in terms of their reliance on iSisters and others (i.e., the school board) for updating software. For example, Youville learners were interested in being able to play with photos of their children, so iSisters helped acquire several copies of Adobe's Photoshop at a greatly discounted rate for the organization, and then prepared and delivered a special weekend workshop on using the software for the Youville learners. Similarly, at TI, literacy had been identified as a broad clientele concern several years ago, and at that time iSisters arranged access to the Nectar Foundation's, Reading and Writing for Life software for all computers in the TI lab. Undoubtedly, iSisters remains very much dependent on and responsive to new technology needs/desires of the specific client group, and these examples clearly indicate how iSisters maintains support after initial contact, and even more so, how iSisters provides support for partners in the sustainable phase.

5.4.5 Long-term Sustainability and Capacity Building

Partner organizations were also asked about steps they have taken to ensure long-term sustainability with respect to several capacity building standards. These included technical aspects such as hardware and/or software, connectivity, funding application support, and program integration or availability for clients. The main theme emerging from partners was that program sustainability is tied to a large extent once again to funding. This idea underscores the reality of the non-profit sector, namely that economic and political forces impact on the sustainability and expansion efforts of all non-government agencies.

Nevertheless, the Youville partner recognized that any staff hired in the future must espouse the idea that technology should be integrated throughout the curriculum and have a user-friendly level of information technology. For example, such new applicants would ideally be knowledgeable on topics related to young women and online safety.

I think it's safe to say that any staff we are hiring now has to have a user friendly level of information technology. And I think that our expectation of the students is that a huge component of all of their assignments and their studies includes technology… as far as funding is concerned, we are always applying for that type of thing.

Since iSisters believes that technological understanding and comfort is critical to employability success in the labour market, such results and conscious staffing strategies are encouraging to see. It was also noted that the Youville computer lab is available to former students who require help with resume writing, job applications, new health card applications, completing landed immigrant status, or some other crisis, and it was further noted that alumni do come and access the lab for such activities.

The idea of an alumni course that would provide a refresher or new technology skills to graduates has been discussed extensively with Youville staff and iSisters has tried to formalize such a

program; however, with the exception of one special course on Adobe Photoshop that did attract a substantial number of graduates, several challenges (i.e., access and funding issues) have prevented full implementation. As Youville learners are young, single moms, they need day-care or babysitting for their child/ren, and consequently, without significant incentives for them to participate (e.g., pre-paid baby-sitting, bus tokens, food/snacks), it has proven difficult to attract alumni to a regular schedule.

5.4.6 Feedback on Impact

Another theme emerging from the data was related to the overall impact and feedback partner agencies have received as a result of their partnership with iSisters. In keeping with the comments made during the learner interviews, it was found that the iSisters' program has a positive reputation in the not-for profit sector. In fact, partners argued that the program needed no advertisement, which was an interesting counterpoint to the learners who commented that the classes should be advertised more extensively. Nevertheless, iSisters relies heavily on good will word-of-mouth in the community and was encouraged that partners regularly praise the program, its effectiveness and impact, as well as the iSisters' approach to partnership.

You know sometimes you have to promote programs by literature. With this program, you don't have to promote it using those means because people are calling up to make sure they can get in.

One goal of iSisters is to take a non-prescriptive approach in terms of its initial contact with partner organizations, as well as to maintain sensitivity to a partner's organizational needs. Each partnership is unique, and is examined carefully with learner needs at the forefront. To be considered as a viable target group, the partner must work with women (at least have a segment of their work in which they specifically provide services to women) who are beyond the edge of crisis because anyone in full crisis cannot survive in a new educational program. For instance, the women at Youville are overcoming huge challenges—they are young, single, new moms, and often have limited support networks beyond the government support agencies, yet, these women are back at school, and so they are not in full crisis.

"One shoe does not fit everyone, and it's nice to know that we are all Cinderella where isisters is concerned"

"I really do need to stress the fact that you [iSisters] don't come in with a package of goods, you come in to see what we need, we tell you what we need and then you make that happen which is very important."

"We always feel that, although you are certainly guiding us, we are driving our own ship."

At IWSO, clients can be at any of several stages from full crisis to some moderated or reduced crisis stage, and given that IWSO services a particularly high number of women who are survivors of

abuse, the role of the liaison is crucial in pre-selecting suitable candidates for taking the iSisters' course. Typically, IWSO learners have already taken a preliminary Job Readiness workshop so that they have a sense of the Canadian job field (and society-at-large), and clearly they are capable of absorbing new information. In other words, if an individual is worried about basic fundamentals she can't possibly be reaching for higher levels of self-actualization.

Probably one of the most important things identified by partners was their appreciation of the empathy iSisters exhibits as it understands the not-for profit world, and more pertinently, it recognizes the bureaucratic red tape faced by many not-for-profits in the Ottawa area. In this sense, partners were relieved that they did not have to fulfill special obligations in order to receive the program, like they do with much of the funding they receive from other organizations. In fact, iSisters does not approach its partners with a pre-set solution, but rather will work with the partner to determine specific needs and will try to see if these needs can be accommodated. Partners also highlighted the content knowledge and expertise the iSisters' team brings to the partnership in understanding the field of education, and in teaching information technology.

6. Discussion of Results

The mixed methodologies approach to this evaluation means that there were two critical data components to examine. The research centres on i) an online survey completed by learners who have participated in an iSisters' course on technology and employability, which typically ranges spans an 8-12 week length; and ii) a set of interviews with two groups of learners from one of the program partners, as well as interviews with senior staff from two partner organizations.

6.1 Online Survey

It seemed very fitting that an online survey be the tool designed for evaluating the impact of iSisters' technology and employability programming. The survey was originally intended to take approximately 20 minutes to complete. In actual fact, this was not the case, as IWSO learners needed more time to process the language, and Youville learners scanned through the questions more quickly.

6.1.1 Demographic Results

Demographic results demonstrated a distinct pattern emerging based on the type of program in which participants were enrolled. Whereas IWSO clients tended to be more educated, and more likely to be married and/or employed, Youville participants tended to be single, less educated women who were unemployed or full-time students. Although iSisters was aware of the different nature of its clientele, this finding validated the extent of the differential demographic profile of learners and will have implications for programming in the future. For instance, future models will need to continue to adapt curriculum with the needs of the partner organizations, particularly those with either risky high-needs learners, or those with more formal educational experiences. The length and intensity of the courses offered will also need to vary according to the abilities of the clientele a partner services.

6.1.2 Computer Usage and Access

Participants indicated increased rates of computer usage and access after having participated in the iSisters' program, particularly with respect to using computers for communication and leisure activities (e.g., sending/receiving emails or downloading pictures). Generally speaking, respondents reported favorable attitudes toward technology and its importance in the workplace today. These results were reinforced by comments made by the learner groups and suggest that the program is impacting positively on respondents' use of technology in their personal lives.

Although not included formally within this report, learners were asked similar questions about technology use and attitudes towards technology when they began the iSisters' course. Between these intake surveys (simple hand-completed one-page forms) and anecdotal comments, it is evident that learners used computers more after a course was complete. In addition, on average, the

learners 'liked' technology more by the end of an iSisters' course, where one of the goals is always to increase comfort with computers and technology. Interestingly enough, learners frequently recognize that technology is important in the world and work place at the start of an iSisters' course, and in fact, anecdotal evidence often underscores that it is because of this recognition that the learners are interested in taking the course.

6.1.3 Program Perceptions

The online survey revealed extremely positive overall satisfaction ratings, and program perception results were generally positive with respect to the following factors: i) pace and length of the program ii) willingness to either recommend the iSisters program to a friend or to take another course; and iii) value of the guest speakers. However, results on the length of the program did suggest that more classes or longer sessions would be well received by learners. Nevertheless, the findings of the survey were positive with respect to the variables measuring program perceptions (i.e., pace and length), and other program impact areas.

6.1.4 Technology and Employability Skills

Program impact results were encouraging with regards to participants either finding employment, or pursuing another learning opportunity following graduation. Further, results of the impact of the iSisters' program on several variables specifically linked to the ISTE-NETS technology skills and the Conference Board of Canada's employability skills were extremely positive, with overall ratings higher for technology skills than for employability skills. The program impact results are very important for determining iSisters' future program direction. As iSisters' courses are designed to demystify technology, increase general comfort with use of technology, and through all of this improve employability skills for learners, the results were very significant.

In fact, learners rated certain technology skills higher than others, with the largest impact areas in respondents' understanding of basic computer use, followed by comfort in using technology. The highest rated employability impact areas were in the ability to i) recognize and respect diversity and individual differences and ii) recognize self and others' good efforts. Interestingly, variability in impact ratings was also much higher in the Youville group.

One explanation for these results is that certain questions rating computer use and comfort should have included the specific word (s) 'delivered in class' (i.e., "Internet"; "World Wide Web"), as some of the critical thinking skills may have been too advanced, particularly in light of language challenges for the clients at IWSO. In future evaluations, it would be efficacious to use more specific questions and/or break the key determinants into more specific items such as i) Internet/ Web skills; ii) book-marking; iii) Internet searching; iv) finding and posting to a job site; and v) preparing a document in Word.

Thus, it is clear from the online survey that the iSisters' program had a differential impact on participants, with more IWSO participants saying that the iSisters' program either provided them some or a lot of help on all of the key determinants of technology skills. Also, clients' employability skills (e.g. confidence) improved after participating in an iSisters' program. In fact, respondents said they felt more confident about themselves and agreed with all the positive statements regarding employability skills. Related to these comments, in future, when assessing post-course employability, it would be appropriate to include a question about volunteerism as a valid activity after completing an iSisters' course.

Therefore, the iSisters' program had a significant impact on these women as measured by the improvement in their technology skills and confidence levels.

6.2 Learner and Partner Interviews

As indicated, the interviews were not originally part of the evaluation design; however, as the project unfolded it was considered that the report would be strengthened by incorporating such direct interviews.

6.2.1 Areas of Strength/Improvement

When asked what they liked most about the program, the majority of respondents noted that they liked the overall technology and employability courses. Participants identified that they enjoyed the opportunity to learn about technology or employability skills (i.e., computer and office skills) generally, and that they particularly liked learning with other women. Learners also appreciated the helpfulness of the instructor, referring specifically to the small classroom environment which allowed the teacher to be more responsive and answer their questions promptly. The learners revealed extensions they had made from the programming; by the end of the course, technology was no longer as intimidating, and they were willing to try new things independently.

In terms of improving the iSisters' program, the majority of respondents indicated that the program length was too short, and suggested that there should be more learning opportunities to practice computer software related to the office including Adobe Photoshop or Microsoft Office (e.g. Excel and PowerPoint). Learners also were eager to emphasize their desire for more courses generally; as long as it was related to technology, they were keen.

6.2.2 Safe Learning Environments

Results from the learner interviews validated the iSisters' program as a highly successful model for delivering employability and technology skills to disadvantaged women for two main reasons i) the notion of feeling safe to learn is held paramount by instructors and ii) a protective environment is established wherein disadvantaged women learn best. Much discussion focused on the relaxed and productive learning atmosphere, the social networking, and the safety of learning in an all-women setting. Learners noted how they had overcome their fear of technology

and integrated newly acquired technology skills into their personal lives. Moreover, these skills empowered clients, and gave them confidence to pursue other learning and/or job opportunities beyond the iSisters' program.

6.2.3 Programming Changes

A major finding from the interviews was that in terms of building capacity, the partner organizations should consider more systematically mentoring learners into teaching roles. The recent hiring of a former learner at IWSO into the position of lab instructor is being well received by new learners, and the implicit value of the course content and usefulness is underscored. Further, several possible programming changes based on feedback from the learner interviews were also revealed, including: i) advertising iSisters' programming more widely in the community; and ii) continuing to remove barriers to accessing the iSisters' program (i.e., transportation, child care).

There also was evidence through the evaluation to support the notion that computer labs located in partner organizations should be staffed with trained instructors outside of regularly scheduled classes. It is unreasonable to expect participants to know the intricacies of program funding; however, the reality is that funding is the responsibility of the partner organization. Unfortunately, partner organizations often do not have enough resources to keep the lab open beyond the hours iSisters opens it formally for classes or special sessions.

6.2.4 The Move toward Sustainability

The partner interviews provided much feedback regarding partner organizations' plans for long-term sustainability and capacity building. Nevertheless, a major theme was the necessity of ongoing support from iSisters in order for partners to move effectively towards a sustainable model. Several challenges in securing a dedicated instructor were also discussed, including the importance of ensuring that instructors received integrated, cross-curricular professional development in technology. To be sure, different volunteers have come and gone in partner organizations because they feel under-utilized. Thus, partner results suggest that better utilization of human resources may be a potential solution to securing a dedicated instructor.

6.2.5 Marketing the iSisters' Brand

The experience from the partner interviews was an excellent validation process for the marketing of the iSisters' program. Teacher experiences, as well as anecdotal comments from program partners regarding the long waiting period to become an iSisters' partner suggest that the program is well-received in Ottawa's non-profit sector. From an organizational perspective, iSisters will need to capture the interest and response to its programs more carefully.

In 2005, iSisters won the Conference Board of Canada award for innovative teaching of technology and employability at TI (Appendix 8). This type of information, as well as positive comments from other non-profit organizations would be particularly useful to market the program to other organizations in the National Capital Region or across the country. Indeed, the theme of advertising was raised during both the learner focus groups and the partner interviews.

The need for iSisters' programs has been identified, and there is great feedback on the usefulness of the courses; however, enrollment is always a concern. Different partners and instructors have noted that despite a lot of enthusiastic talk and receptiveness to iSisters' courses, it remains difficult to get women to commit to and then actually show up regularly to the course.

6.2.6 Funding Challenges

Despite the popularity of the programming and the fact that skills shortages are being addressed, a major theme that surfaced in the partner interviews was that they struggle to find money for new soft-skill and self-reliant kind of programming. Enhancing employability skills is not as high profile as providing employment or providing mentorship opportunities, and this reality exacerbates the ongoing dilemma of funding sustainability.

Further, the funding of "maintenance" of the computer lab continues to be an issue in terms of support of the equipment and software.

Lastly, in cases where partnership survival is threatened by lack of external funding, there is a need to resolve the dilemma and re-establish an active iSisters' presence at the partner site to revive a program and/or ensure the lab is open for use. Essentially, a rescue program—with dedicated funds—is required for situations like TI, which was on the way to developing a sustainable model, but because of extenuating circumstances, such as moving physical locations, they fell "off track".

6.2.7 Future Directions

iTeachnology™ is an online version of iSisters' technology mentoring programs; portions of the program have been trialed with various learner groups over the past year. In a Web-based format, users can access lessons, complete activities, follow links, and download course handouts. These resources are made by teachers and Web-designers, are classroom-tested and are available free via the Internet by logging into the iSisters' Website and following the link. The iTeachnology™ product was initially planned as an integral element to providing a sustainable program for program partners by allowing learners to experience learning independently and online. All materials and learning resources are available online for program partners and learners to access independent of iSisters.

These resources have been designed, delivered, modified, and catered specifically for the needs of different learner groups, which is to say the units are organized in a modular format, so learners and instructors can determine which segments they will complete and how thoroughly. It is hoped

that iTeachnology™ will serve as a model of best practices in terms of design and implementation of a customized online learning environment anywhere there are women in need. Most recently, iTeachnology™ was split into two sections: i) a learning portion intended to provide foundational information and activities related to technology and employability and designed for 'students', and ii) a PD portion aimed to provide a slightly more advanced or teacher/mentor approach to the content. The online environment provides an opportunity for program partners and participants to collaborate and access resources to assist them with their learning (i.e. Websites, support documents, etc.), receive online mentoring and support, and develop the skills for how to access and interact with information online. It also provides an opportunity for learners to take ownership of their learning and as a result, promotes lifelong learning. The integration of the iTeachnology™ product has been a goal of iSisters for many years and supports the organization's corporate vision: iSisters Technology Mentoring, leader in technology learning and development, helps empower women in need to live better lives, create brighter futures and build stronger communities.

Figure 3. Overview of Core Findings from the CCL Project for iSisters

As a result of this two-year research project, iSisters will need to:

ENSURE LEVEL OF READINESS IN PARTNER ORGANIZATION

- Create and use the iRI tool
- Network in non-profit community

EXPAND PROGRAM DELIVERY

- Maintain level 2 program and special workshops
- Add a level 3 program and more specialized workshops
- Expand lab access through open time before/after class
- Consider online options
- Use more of iTeachnology
- Vary programming based on demographic needs

DELIVER EMPLOYABILITY AND TECHNOLOGY TRAINING

- Establish programs and mentor all partners
- Ensure continuity between classroom and open lab leadership
- Broaden sustainability support to non-profit partner organizations
- Recruit talented members to Board
- Employ compassionate and learner-focused instructors
- Access media to expand community awareness of iSisters' programming

KEEP SEPARATE CLASSES FOR WOMEN LEARNERS

- Create partnerships where primary clientele is women in need
- Provide learner supports, such as transportation and child care
- Deliver day-time programming to accommodate learner availability
- Do not charge a user fee for programs

6.3 Concluding Remarks and Limitations

This comprehensive research project involved partnerships with key stakeholders including community-based organizations, corporate partners and the academic community. In keeping with a firm philosophy that the project build on previous learning and experiences, the research study set measurable goals, tracked outcomes, analyzed findings, and reported on the research. However, it should be noted that the final survey results did not include all learner groups as initially planned (e.g., TI). As such, results should not be considered representative of all women who have taken part in an iSisters' program, nor for that matter does this demographic necessarily represent all future learners/partnerships.

Another limitation related to data collection is that although efforts were made to provide support for learners as they completed the surveys, it should be remembered that not all learners necessarily asked for help in understanding the questions, as it might have revealed a weakness in reading and comprehension. It is also important to note programs varied in length (8-12 weeks, generally, although there were a couple of shorter workshops). Moreover, different instructors have been involved in delivering iSisters' technology and employability training courses, as well as in delivering specialty workshops, and frequently learners did not specifically recall who had been responsible for teaching the course. Although program providers are typically very clear about funding and design origins, learners are more interested in participating in a course and learning. Finally, it should be noted that some surveys were completed immediately upon exiting the program, while other surveys were completed with a few months delay.

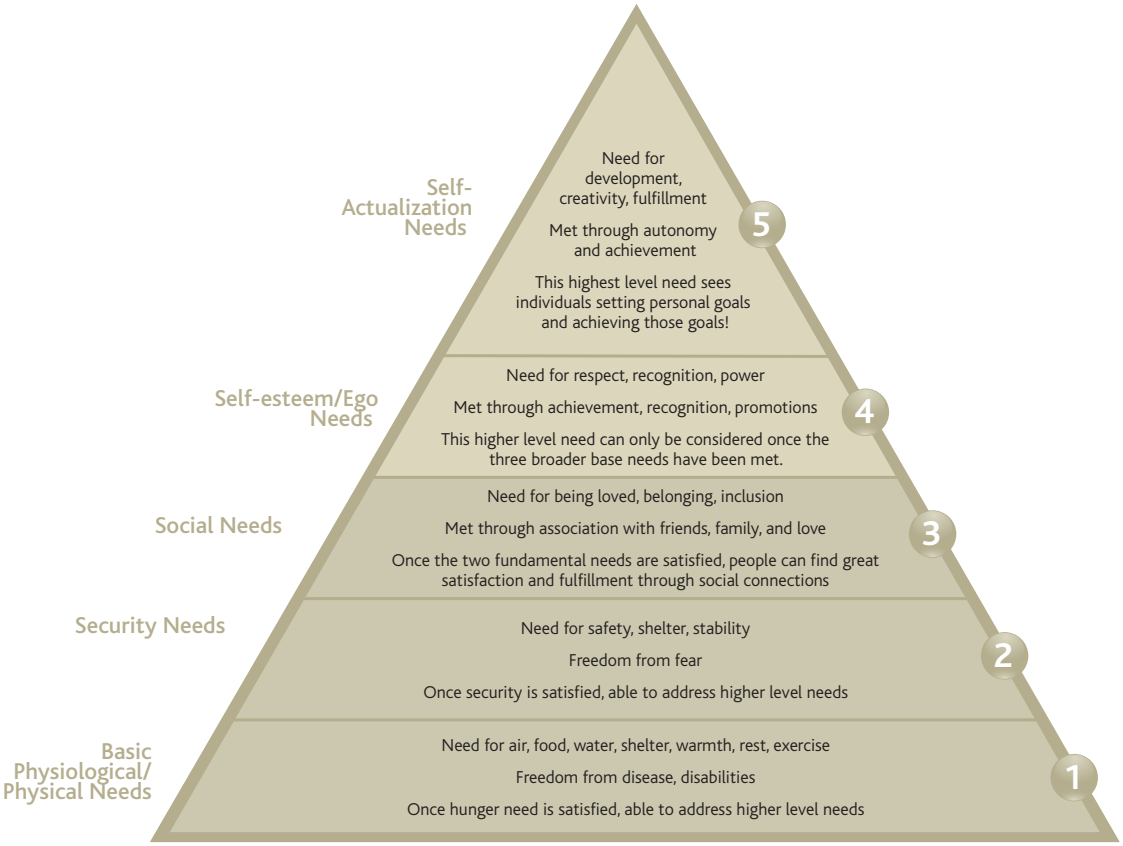
From the quantitative results and the qualitative feedback sections of the survey, we can draw the conclusion that the iSisters' program has provided clients with basic technology skills, as well as key employability skills. Since most of the women lacked these skills (IWSO women were typically well-educated but unfamiliar with technology and Canadian employability requirements), many recognized the value of the program either for entering the Canadian labor market or in pursuing their studies on the next level. It was also evident from the learner interview that the program was successful in removing psychological barriers to technology use in that many clients were no longer afraid of using the computer. Finally, the congruency between the iSisters' program and that of other organizations was another level of validation stemming from the learner interviews.

The partner interviews yielded tremendous insight into how well iSisters can build capacity within partners to deliver technology-based employment support programs. A key result was that building capacity in partner organizations is critical to enable the partners to train and sustain 'iSisters-like instructors' who are both technologically competent, and sensitive to the unique nature of women learners. It is hoped that the iTeachnology™ product can facilitate the professional development component, as well as launch the expansion of iSisters outside of the Ottawa region.

6.4 Observations on Learner Profiles and Lifelong Learning at iSisters

Based on the research, synthesis of findings, and extensive reflection, two elements related to the uniqueness of 'learning' via the iSisters' mentoring approach emerged. Because learning happens at many levels constantly and in a highly social context at iSisters, it was appropriate to look at iSisters' learners through Maslow's hierarchy of needs. Figure 4 presents the typical Maslow pyramid of hierarchical needs through the perspective of the iSisters' learner. Secondly, iSisters supports lifelong learning as a core value, and thus, it was again important to examine how iSisters' learners use their experience to embark on or pursue lifelong learning. Figure 5 considers the learner at the centre of a lifelong learning cycle.

Figure 4. Maslow's Hierarchy as applied to iSisters' Learners



This information has been modeled on and adapted from:

Taggart, J. November 2007. Motivation and Leadership for Executive Members, Managers, and Committee Chairs Factsheet (ISSN 1198-712X). Retrieved October 30, 2008 from <http://www.omafra.gov.on.ca/english/rural/facts/96-001.htm>.

To understand Maslow as applied to iSisters' programming, read the information from the bottom level up. Maslow's hierarchy of needs looks at people as having fundamental or basic physiological needs underpinning higher level needs. Only once the most urgent or base level needs (the lower three level needs) are met can higher level needs (the top two level needs) be considered. It is particularly important to note that individuals determine their own 'need level', and similarly, individuals determine when that need has been satisfied. With the satisfaction of a need, the person sees his/her surroundings differently, and begins to crave the meeting of needs on higher levels. Finally, needs are not absolute, discrete, nor uni-directional; therefore, people move on this hierarchy and may be addressing more than one need at any given time.

1 **Basic Physiological/Physical Needs**

iSisters' learners are not worrying about the basic physical and physiological needs; they are beyond full crisis. When someone is concerned about essential physical well being, it is not possible to embark on higher level activities. Even learners at our newest partnership, Cornerstone, are not immediately concerned about shelter, as they are safely housed temporarily at Cornerstone, and their need for more permanent housing is being addressed.

2 **Security Needs**

iSisters' learners are at various points when it comes to meeting security needs. Typically, women accessing services provided by iSisters' partner organizations have some concerns for security. However, the women in an iSisters' course are no longer concerned about all of the elements related to security. Part of the partner's responsibility is to ensure that women who register for a course are ready to learn—specifically, a woman may have safety and shelter but be concerned with economic stability; or she may have personal safety, shelter, and stability but be seeking reunification with children/family still in another country; or she may have no worries about security at all and be very interested in fulfilling higher level needs.

3 **Social Needs**

iSisters incorporates a significant social component in all its courses, but this is less related to meeting a social need, than to recognizing that women learn best in social settings. Women enjoy taking courses with friends, meeting new women who have similar interests (in this case the interest is improving technology and employability skills), and learning in such 'safe' settings. Of course, many iSisters' learners do not know one another until the course starts, but several women have maintained friendships long past the duration of the course.

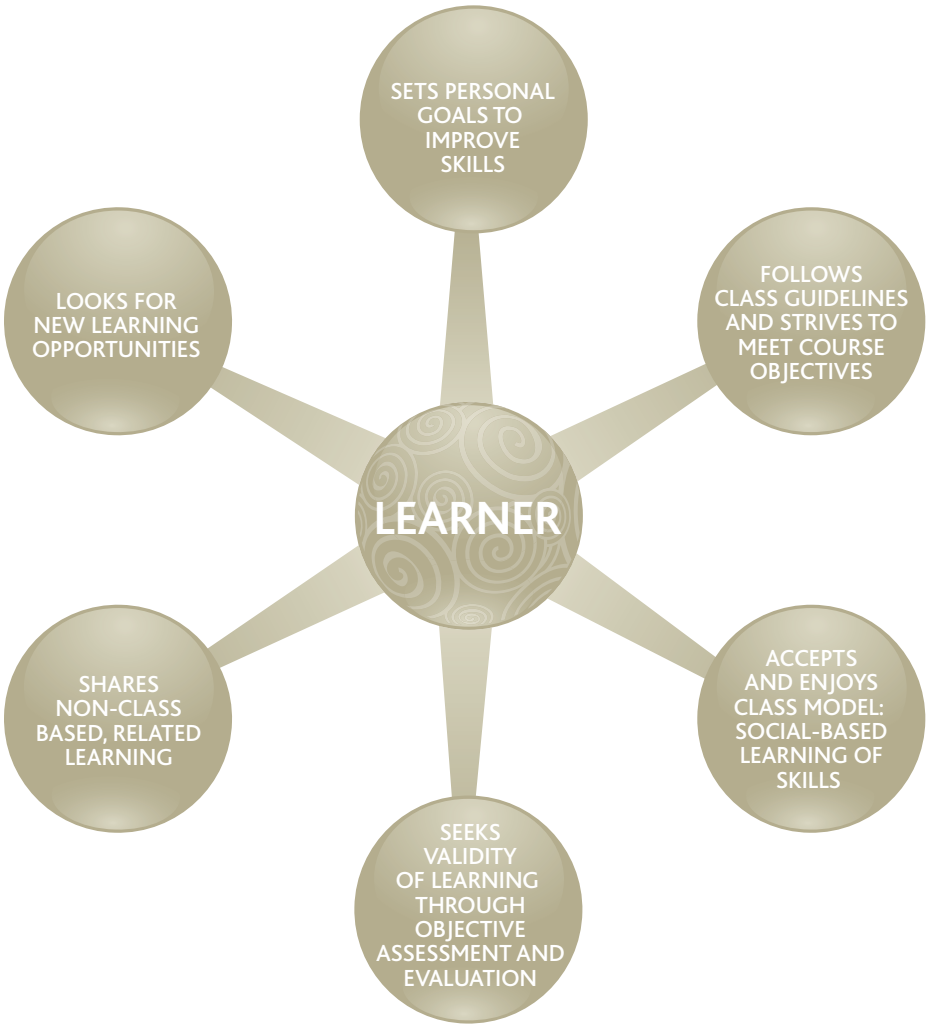
4 **Self-esteem/Ego Needs**

Some iSisters' learners have had the self-esteem need satisfied before taking a technology and employability course. However, perhaps that ego is a bit tarnished or that recognition happened long ago—maybe in another country or before their current circumstance—and so it could be seen as 'disrupted'. A fundamental precondition for each class is that everyone is respectful of her class mates, and then by extension, good work, completed activities, and all successes are recognized. Learners are validated as they apply their skills to a higher level and develop their own skill sets, while iSisters can point to a few particularly engaged, capable and eager learners who have been invited to lead classes or sessions at the partner organization.

5 **Self-Actualization Needs**

The women taking iSisters' courses come from varied backgrounds, but all are interested in developing their personal technology and employability skills. They have made the choice to take the course, and they are seeking skills they don't have, seeking to update skills that have lapsed, or seeking to re-shape and modernize skills to better suit today's Canadian workplace. Most of the learners who commit to a course complete the course. Many of those learners seek additional opportunities to develop the skills introduced in the classes by coming early or staying late to access the lab. In some cases, the women are so empowered with their new knowledge and skills that they wish to share beyond their initial comfort zone (food, crafts, art, and family stories) and are interested in 'giving' back. Some of these women have become new teachers or volunteers with iSisters, while others have become more involved with the partner organization. Other women realize that their appetite for learning is not sated with one course, and in fact, through such pressure, iSisters eventually developed a 'Level 2' course in technology and employability.

Figure 5. Lifelong Learning at iSisters



Learners at iSisters have varied backgrounds – academic and emotional – which impact greatly on their readiness and interest in learning. There is some homogeneity in any given group based on the partner organization. That is, all learners at Youville are under 21, while all learners at IWSO are immigrants or in the process of getting Canadian papers.

The sub-points to each of the six core actions are also realized and achieved at different points by the learners – some learners move through the points sequentially, while others experience learning elements concurrently. Thus when looking at any particular learner in an iSisters' program, it is possible

to see that learner completing one, two, or all these elements throughout the course. Specifically, the iSisters' Lifelong Learner:

Sets personal goals to improve skills

- Improves chances for employability
- Improves confidence with technology
- Develops greater independence

Follows class guidelines and strives to meet course objectives

- Respects iSisters-established parameters
- Is prepared for class and respectful of peers' learning
- Accepts assessment and evaluation as measurement of competency

Accepts and enjoys class model: social-based learning of skills

- Respects iSisters/partner-established class time and setting
- Engages in class: asks questions, brings in external examples, tries activities
- Progresses from class of strangers to group of colleagues and/or friends

Seeks validity of learning through objective assessment and evaluation

- Is reluctant to take 'quiz' for fear of negative outcome
- Seeks quiz or activity to check for learning
- Looks for enrichment activities, sites, opportunities

Shares non-class based, related learning

- Self-scans groceries, changes password on home computer, tracks children's surfing
- Tells class about special workshops or other employability options (guest speakers)
- Books a ticket online, completes an online application, helps a friend set up email

Looks for new learning opportunities

- Requests a higher course level or additional special workshops
- Finds the courage to apply to a program at college or adult high school
- Suggests a new learning opportunity that relates to technology and women i.e., cooking and sharing recipes via Word and a community Website

7. Recommendations

The mandate of iSisters Technology Mentoring (iSisters) is to *connect women in need with technology through mentoring*, or more broadly, to provide technology-enabled employment support programming for marginalized women and to encourage lifelong learning. The purpose of this program evaluation was to monitor the impact of the community-based programming approach that iSisters uses to offer an integrated approach to learning featuring in-class and online learning, career coaching and opportunities for work placements. This mentoring approach to learning is a unique and comprehensive approach to building the technology and employability skills of marginalized women in the Ottawa area.

Using a quasi-experimental, mixed methods approach, the outcome and findings of this applied research project hold significant promise of replicability and scalability for other organizations to adopt and implement. The summative evaluation design incorporated i) both qualitative and quantitative data as gathered from an online exit survey completed by learners who had taken an iSisters' course; and ii) data gathered from a series of face-to-face interviews with program participants and partner organizations.

It is iSisters' intention that results obtained from this research will provide a framework for i) replicating a community-based learning program for other organizations; and ii) incorporating findings from this evaluation process to enhance future program delivery within iSisters. This framework is complete with tangibles (some are attached in the appendices, and others are available upon request), such as a partnership agreement template, partner evaluation criteria and analysis of partner and learner course feedback (online and face-to-face), as well as technology and employability teaching materials as packaged in iTeachnology™.

Therefore, the research team recommends:

1. That iSisters adopt the use of a Readiness Inventory (based on established criteria) for considering and/or selecting a potential organization for partnership.
2. That iSisters consider the remote expansion/portability of its technology and employability-based programs through integrating iTeachnology™ into the regular programming that iSisters offers its partners.
3. That iSisters protect the core value of establishing a safe learning environment for disadvantaged women by ensuring that partners maintain consistency between staff hired for on-site labs and classroom instructors.
4. That iSisters undertake a systematic review of its programming and make any necessary adjustment and/or modifications to its schedule in terms of the proportion of time spent in-class versus in the on-site computer labs, with a view to increasing the availability of the lab to clients after regularly scheduled classes.

5. That iSisters implement an expanded suite of programming that is more flexible and responsive in terms of the development of courses over shorter periods of time and/or specific to a group of learner needs.
6. That iSisters review its programs in light of the need to model curriculum according to clientele with differing demographic profiles.
7. That iSisters continue to respond to learner/partner program requests, and in this way continue to expand the repertoire of technology and employability course materials it has on hand to offer all partners.
8. That iSisters continue to provide ongoing support for partners struggling with external funding challenges, particularly with respect to securing a dedicated instructor and in maintaining the lab facilities to acceptable standards.
9. That iSisters institute a formalized methodology for monitoring partner success in capacity building, and provide a mechanism through which struggling partnerships (e.g., TI) may be resuscitated.
10. That iSisters and its partners continue to offer employability and technology mentoring programs free of charge.
11. That iSisters and its partners continue to work collaboratively to remove all access barriers to participation in its programs (i.e., transportation, child care) for disadvantaged women with limited financial means.
12. That iSisters encourage graduate promotion as a viable route to program sustainability for the partner organization.

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Appendix 2: Consent Forms

A - Online Consent

Dear iSisters participant:

Thank you for visiting the iSisters on-line survey.

Your participation in the survey is voluntary and you may withdraw at any time. It should take you about 30 minutes to complete.

The information collected from the survey is confidential. iSisters will use the information to monitor and program effectiveness.

If you have any questions about your participation you can contact, Jennifer McEvoy, Executive Director of iSisters at: jmcevoy@isisters.org.

Thank you for your help.

*I have read and understood the request for me to participate in the iSisters program evaluation, and I give permission to participate in the study.

Appendix 2: Consent Forms

B - Participant Consent

Learner Interview - Informed Consent Letter

Dear iSisters partner:

Through funding from the Canadian Council on Learning, iSisters has engaged in a program evaluation to measure the impact of its community-based technology employment support programs. To do this, we need your help in answering a few interview questions.

Your participation in the interview is completely voluntary and you may withdraw at any time. The interview should take approximately ½ hour to conduct, during which time we will be asking you questions about your organization's experience with the iSisters Technology Mentoring program, and your capacity to sustain the program in the future. Although the information collected for this research project will be audio-taped, we will ensure that it is kept in a secure location, and that no-one besides the researchers will have access. All responses will be coded so that no personal information can be identified.

Findings from this project will be useful for other organizations who may wish to implement the iSisters program in the future, and to monitor the effectiveness of the current iSisters program. If you have any questions about your participation in this study you can contact, Cathy Reid, Executive Director of iSisters, at <creid@isisters.org> or at 613-565-7337.

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fold and detach here

I have read and understood the request for me to participate in the iSisters program evaluation and I give permission to participate in the study which includes an audio-taped interview.

Name of Partner Organization:_____ (please print)

Date: _____

Signature of Partner Organization:_____

Appendix 2: Consent Forms

C - Partner Consent

Partner Interview - Informed Consent Letter

Dear iSisters participant:

As you may know, iSisters is trying to measure the effectiveness of its program at IWSO. To do this, we need your help in responding to a few interview questions. Your answers will be collected and compiled with other responses so that we can learn more about the impact of iSisters programs. Findings from this project will also be useful for other organizations who may wish to implement the iSisters program.

You do not have to participate in the interview, and you can stop at any time for any reason. It should take approximately ½ hour to complete, and we will be asking you questions about your experiences with the isisters program. We will also ask what you think about technology and your feelings about how the iSisters program helped you.

The information collected for this research project is confidential. All responses will be coded so that neither your name, nor any other personal identification will be made available to anyone else. The study's results will not appear in any official records, and will be used to monitor the effectiveness of the iSisters program only.

If you have any questions about your participation in this study you can contact, Cathy Reid, Executive Director of iSisters, at <creid@isisters.org> or at 613-565-7337.

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fold and detach here

I have read and understood the request for me to participate in the iSisters program evaluation learner interview and I give permission to participate in the study.

Name of participant: _____ (please print)

Date: _____

Signature of Participant:_____

Appendix 3: Data Collection Tools

A - Screen captures of the online survey

iSisters Participant Survey – April 2007

iSisters Technology Mentoring Participant Survey

1. Welcome!

Dear iSisters participant:

Thank you for visiting the iSisters on-line survey.

Your participation in the survey is voluntary and you may withdraw at any time. It should take you about 30 minutes to complete.

The information collected from the survey is confidential. iSisters will use the information to monitor and program effectiveness.

If you have any questions about your participation you can contact, Cathy Reid, Executive Director of iSisters at: creid@isisters.org.

Thank you for your help.

* **1. I have read and understood the request for me to participate in the iSisters program evaluation, and I give permission to participate in the study.**

Yes

Next >>

iSisters Technology Mentoring Participant Survey

2. DEMOGRAPHICS:

1. What is your name (Last name, First name)?

2. Please select the iSisters program in which you were registered

3. In which year did you participate in the iSisters program?

4. What is your current employment status?

- Full time
- Part time (casual, on-call, seasonal)
- Unemployed but looking for work
- Working full-time at home
- Unable to work
- Other (please specify)

5. What is the highest level of education you have completed?

- Up to grade 6
- Up to grade 8
- Some high school
- High school diploma
- Some post-secondary
- Completed post-secondary
- Other (please specify)

6. What language do you speak at home?

- I speak English only
- I speak mostly in English and another language
- I speak mostly in a language other than English

7. What was your marital status when you participated in the iSisters program?

- Single, not married
- Married/common-law
- Separated/divorced
- Other (please specify)

8. What was your parental status when you participated in the iSisters program?

- Single parent household
- Two parent household
- No dependents (children) at home

9. Other than your own children, did you have family dependents living with you when you participated in the iSisters' program (i.e., elderly parents, grandparents, aunts and/or uncles)?

Yes No

<< Prev Next >>

iSisters Technology Mentoring Participant Survey

3. COMPUTER ACCESS/USAGE:

10. Do you have a computer at home?

Yes ◯ No ◯

11. If yes, how often do you use your home computer?

- ◯ Less than once per week
- ◯ 2-3 times per week
- ◯ Almost every day
- ◯ At least once per day, sometimes more

12. What do you use your computer for? (You may choose more than one use.)

- ☐ Leisure (i.e., play games, surf the internet, download pictures, listen to or get music, watch or get movies)
- ☐ Work (i.e., school-work, paid-work, research)
- ☐ Communication (i.e., send or receive e-mail/live chat/instant messaging)
- ☐ Other (please specify)

<< Prev **Next >>**

iSisters Technology Mentoring Participant Survey

4. ATTITUDES TOWARDS TECHNOLOGY:

13. Please rate the following statements regarding technology on a scale of 1 to 5.

	1 disagree strongly	2 disagree somewhat	3 neutral	4 agree somewhat	5 agree strongly	N/A
I like technology	◯	◯	◯	◯	◯	◯
I think technology is important in the world today	◯	◯	◯	◯	◯	◯
I think technology is important in the work place today	◯	◯	◯	◯	◯	◯

<< Prev **Next >>**

iSisters Technology Mentoring Participant Survey

5. PROGRAM PERCEPTIONS:

14. How did you feel about the pace of the iSisters program?

Too fast | Just about right | Too slow

15. How did you feel about the length of the iSisters program?

Too long | Just about right | Too short

16. Would you recommend the iSisters program to a friend?

- Yes
- No
- Don't know

17. If offered, would you take another iSisters course?

- Yes
- No
- Don't know

18. Did you access the lab outside of scheduled classes?

Yes | No

19. Did you find the guest speakers valuable?

- Yes
- No
- Don't know

20. Some people need help in removing barriers to participate in the iSisters program. Please indicate which support services you used in order to come to class. You may choose more than one answer.

- Transportation
- Child care
- None
-
- Other (please specify)

21. Overall, how satisfied were you with the iSisters program?

Very dissatisfied | Dissatisfied | No opinion | Satisfied | Very satisfied

<< Prev **Next >>**

iSisters Technology Mentoring Participant Survey

6. PROGRAM IMPACT:

22. The iSisters program helped me find:

- [ ] An employment opportunity
- [ ] A co-op placement
- [ ] Another course (i.e., adult high school)
- [ ] Not applicable
- [ ] Other (please specify)

23. After graduating from the iSisters program, how long did it take to find your first educational or employment opportunity?

24. Please rate how the iSisters program has helped you with the following technology skills:

	1 no help at all	2 not very helpful	3 neutral	4 some help	5 helped a lot	N/A
my comfort in using technology						
my understanding of basic computer and/or program use						
my ability to locate, gather and organize information						
my understanding of the ethical, cultural, and social issues related to technology						
my understanding of the acceptable use of technology						
my attitudes toward technology						
my ability to use technology to write and be creative						
my ability to communicate online						
my ability to evaluate online content						
my ability to use technology to solve problems						

25. Please rate the following statements about yourself as a result of having participated in the iSisters program.

	1 disagree strongly	2 disagree somewhat	3 neutral	4 agree somewhat	5 agree strongly	N/A
I am better able to work independently						
I am better able to find ways to achieve goals and get the job done						
I recognize and respect diversity and individual differences						
I better understand my strengths and weaknesses						
I am better able to work as a part of a team						
I recognize my own and others' good efforts						
I am better able to give and receive feedback						
I feel good about myself and I am more confident						

<< Prev **Next >>**

iSisters Technology Mentoring Participant Survey

7. PROGRAM FEEDBACK:

Please type your responses to these last 6 questions in the boxes provided.

26. What did you like most about the iSisters program?

27. What did you like least about the iSisters program?

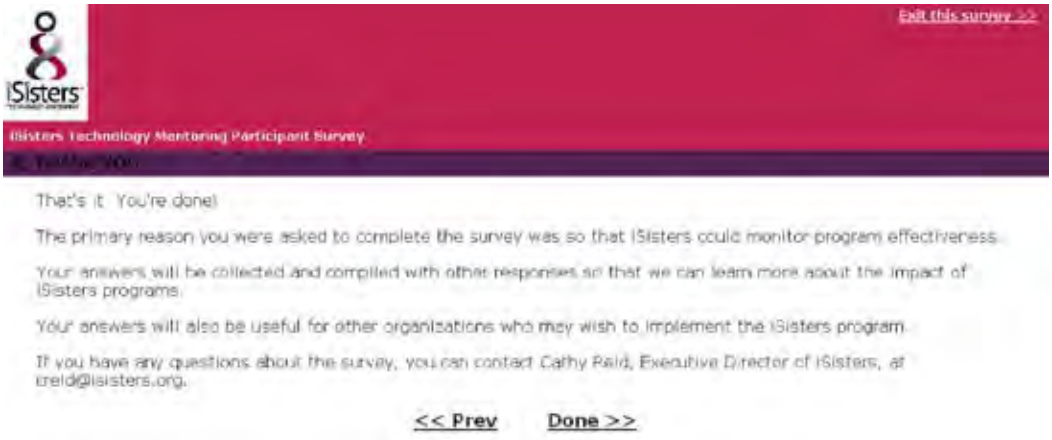
28. In what ways could the iSisters program be improved?

29. What technology skills do you still want to learn?

30. What was the most valuable thing you learned in this course?

31. Do you have any other comments you would like to make about the iSisters program?

<< Prev **Next >>**



Exit this survey >>

iSisters Technology Mentoring Participant Survey

That's it. You're done!

The primary reason you were asked to complete the survey was so that iSisters could monitor program effectiveness.

Your answers will be collected and compiled with other responses so that we can learn more about the impact of iSisters programs.

Your answers will also be useful for other organizations who may wish to implement the iSisters program.

If you have any questions about the survey, you can contact Cathy Reid, Executive Director of iSisters, at creid@isisters.org.

<< Prev Done >>

Appendix 3: Data Collection Tools
B - Participant Interview Guide

iSisters Program Evaluation
Participant Post-course Conversation Guide

Oral reminder of key points

Name of the Study: Technology Mentoring for Women in Need

Name of Researcher: Judy Puritt

Invitation to Participate: You all signed agreement to participate in this research study looking at technology mentoring for women who have taken an iSisters course. You may withdraw from today's conversation at any point without any penalty – just ask me to stop the tape.

Purpose and Description of the Research: This research is being conducted to deepen my understanding of how women are changed by participating in a technology-based employability skill building program. The iSisters Employment Learning Program aims to encourage life-long learning, promote economic independence and empower women with more career opportunities through technological awareness.

What is the Study About: You have already completed the online survey, some of you have talked to me about your individual experiences, and you are now participating in this group interview. The group interview will ask questions about the lasting effect of having participated in the technology course (1-2 hours).

Will Anyone Know What I Said? I will tape-record today's group interview so I don't have to write while we talk, but that tape will only be used for research purposes, with all reporting presented in composite form (no names will be used). I encourage all participants to keep the details of the group interview within the group, but all participants need to realize there are limits to confidentiality for discussions held in group settings. Tapes will be transcribed by me and will be kept in a locked filing cabinet in my office. No identifying information will be included in any document resulting from this study.

Actual Conversation Guide

1. What are your current technology skills?

   Prompts/Probes

   Do you feel you know more than before level 1 and level 2 courses?
   Do you use tech more?
   How does tech make you feel?
   How does having the skills make you feel?

2. What lasting benefit(s) are you experiencing from the course you took in May-June '07 ?

   Prompts/Probes

   Signed up for another course?
   Have a position (job-shadowing, new job,…)?
   Using (more) technology at work?
   Have/got/use a computer (more)?
   Have tried other types of technology (self-serve kiosks/online payments)?
   New friends/network associates?
   New technology skills? (Excel, mail lists, blogging,…)
   Deeper and ongoing interest/curiosity/understanding of technology

3. What top 3 things did you learn that you remember best/felt helped you the most from the course?

   Prompts/Probes

   More Word work?
   Word: tables, drop downs, icons, short-cuts
   More desktop management
   Intro/refresher to Excel?
   Willingness to troubleshoot/try things?
   Broadened network of learning-focused women?
   Greater confidence with computers
   Use of USB
   Job shadowing
   Active with a job group

4. If you could go back and do one thing differently during that course, what would it be? (outside stressors/ daily life aside)

   Prompts/Probes

   Timing (longer per day, less per day,…)

   Nature of course – focus to…?

   Practice time, reinforcement activities?

5. Did you have enough support/incentive (baby-sitting/bus money/networking…)? What should have been included to make this kind of course more accessible to other women clients of IWSO?

6. Anything else you would like to add?

Appendix 3: Data Collection Tools

C - Partner Interview Guide

iSisters Program Evaluation Partner Interview Protocol

1. What challenges did you face in securing a dedicated instructor (Please use the following criteria to guide your response)?
   - Funding
   - Suitability (e.g. teaching ability; technology and/or employability skills)
   - Availability (i.e., full-time vs. part-time)
   - Professional development (i.e., mentoring/training relationship with iSisters)

2. Describe the successes and challenges you faced, specifically regarding the issues below, in moving towards a sustainable model of providing technology access and learning opportunities for your clients.
   - maintaining and updating the physical state of the lab as required
   - providing reliable and timely technical support
   - creating a sense of ownership and contributing innovation in programming (e.g., drop-in session; keyboarding session)
   - achieving a level of independence (e.g. full course running in 8wk model)

3. Explain why your organization still requires the iSisters technology mentoring program.

4. Looking ahead, what steps has your organization taken to ensure long-term sustainability with respect to the following capacity building standards?
   - Technical (i.e., hardware; software; connectivity)
   - Funding (i.e., application support)
   - Program integration/availability for clients

5. Discuss the overall impact and feedback you have received as related to the addition of a partnership with iSisters.
   - Internal staff
   - Clients
   - Organizations with whom you interact

6. Add any further comments on the partnership with iSisters that have not been addressed.

Appendix 4:
iSisters Partnership Readiness Inventory (iRI)

Background
The idea for a partnership readiness inventory arose from a team meeting held during the data collection phase of the CCL research process. Originally, part of the research plan called for the gathering of interview data from partner organizations who had participated in an iSisters technology mentoring program. It was thought that the partner interviews would provide valuable insight about the extent to which the iSisters program had impacted capacity building within the partner organization. Thus, the partner interview guide was drafted for one purpose only: to interview partners.

However, it was discovered that the questions used for the interview guide could also be useful to assist both potential partners and the iSisters organization, in their mutual efforts to secure a successful partnership agreement. In fact, the questions used in the interview guide for existing partners mirrored exactly the types of questions that iSisters would require from a potential partner organization. Thus, the team resolved to create a diagnostic instrument that could be used to measure the readiness of a potential partner to implement an iSisters program. The following paragraphs describe the purpose and rationale for such an instrument, as well as the methods used in its development.

Purpose
The iSisters' Readiness Inventory (iRI) will be used by iSisters' staff to assess the capacity of potential partner organizations to receive technology mentoring and employability skills programs. The iRI is attached here as Appendix A.

Rationale
The iRI is designed to provide diagnostic information about an organization's readiness to implement an iSisters program. The rationale for developing this type of instrument stems from the lack of technology mentoring and employability skills programs available in Ottawa that are specifically tailored to suit the learning profiles of disadvantaged women, and the resultant demand for adequate programs, such as the iSisters program, which arises from this unmet need.

Given that the demand for technology mentoring programs, particularly in the National Capital region, currently exceeds the services available, the iRI will help the administrative staff at iSisters to prioritize their efforts in assisting partner organizations.

Further, experience with potential partners has shown that the diagnostic nature of the instrument will provide those organizations who may not be ready to receive iSisters programming with

tangible evidence as to how they can further develop their internal operations/resources (i.e., computer hardware, support staff etc.) before a partnership agreement is signed.

In other words, the iRI will enable the iSisters' organization to identify the best possible partnership match for its technology mentoring and employability skills programs.

Method

It is anticipated that much information will be gained from the partners interviews regarding the impact of the iSisters program. As discussed, this rich qualitative data will be reinforced by the quantitative data recorded from the iRI, which can then be used to assist potential partners 'get ready' for the iSisters program.

Each item on the diagnostic instrument is linked to a specific program requirement as identified in the original partner interview (see Appendix B). Recognizing that there are several basic elements which must exist in a potential partner organization prior to implementing an iSisters program, each partnership application will be measured against the iRI's three main standards and/or criteria: i) Instructor Standards/Criteria; ii) Partner Standards/Criteria; and iii) Capacity Building Standards/Criteria.

Instructor

The Instructor Standards/Criteria are related to the instructor who will actually deliver the programs in the partner organization. The iRI will measure items such as the amount of funding available to retain instructors, and the level of training that the instructor has received.

Partner

Items that will be assessed against the Partner Standards/Criteria include technical issues such as hardware availability and Internet access. Also, an understanding of the completion rates for the partners' internal programs is important insofar as this will help identify potential non-completion issues for iSisters' programs.

Capacity Building

Finally, long-term sustainability within the partner organization is the ultimate goal of the iSisters program. Thus, the iRI will determine whether or not the partner can successfully integrate the iSisters model into their organization's long-term plans (i.e., funding for operational and administration costs).

Scoring

Each item on the iRI will be scored on a ten-point scale. For those items where categorical data are required, the response categories will be transformed to allow them to be scored on the appropriate scale. Component sub-scores will then be calculated to determine which areas require

improvement. Finally, a global composite score for all items on the iRI will provide an overall measure of readiness for potential partners and iSisteres staff.

Reports and Analysis

The iRI itself will be distributed to partners prior to the diagnostic visit so that they may initiate the types of activities required to prepare for iSisters staff. Following the initial visit, potential partners will be provided with extensive feedback regarding their performance on the iRI. This information will be disseminated in the form of a one-page report which identifies areas of strength and weakness. Ongoing consultation between partners and iSisters with respect to organizational readiness will also be facilitated by the results derived from the iRI. Taken together, the one-page report and the consultation process will allow iSisters to identify the best possible potential partner with which to engage in an iSisters programming agreement.

iSisters Readiness Inventory (iRI)

DIAGNOSTIC COMPONENT	SCALE					Item Score
Instructor Standards/Criteria						
Criteria based on instructor provided by partner to work with and learn from iSisters.						
Q1 Funding has been secured	None (0) Partial (2) Full (5)					
Comments:						
	1 poor	**2**	**3** good	**4**	**5** excellent	
Q2 (a) Ability to Implement course						
Comments:						
Q2 (b) Ability to modify materials and teaching strategies as required by learner needs						
Comments:						
Q2 (c) Participation / buy in to succession planning						
Comments:						
Q3 Workforce preparation / pre-employment training skills						
Comments:						
Q4 Participant selection (proper screening and communication of expectations)						
Comments:						
Q5 Instructor collaboration with iSisters						
Comments:						
Partner Standards / Criteria	**Component Sub-Score:**					
Criteria based on partner readiness for learning program responsibilities.						
Q1 Identify Phase 1. Design, 2. Implement, 3. Sustainable	1. 2. 3.					n/a
	1 poor	**2**	**3** good	**4**	**5** excellent	
Q2 (a) Secure Location						
Comments:						
Q2 (b) Internet Access/Technical Support provided by partner						

Comments:						
	1 poor	**2**	**3** good	**4**	**5** excellent	
Q2 (c) Funding Application Support						
Comments:						
Q2 (d) Feedback and Testimonials provided						
Comments:						
Q2 (e) Program Ownership by partner						
Comments:						
Q2 (f) Media Support by partner						
Comments:						
Q3 Partner Collaboration with iSisters						
Comments:						
Q4 Completion Rates of participants (in %) _____	<60%,0|70-90%,2|>90,%5					
Comments:						
Capacity Building Standards / Criteria	**Component Sub-Score:**					
Criteria based on partner capacity to manage new learning program.						
Q1 (a) Hardware Required	Yes 2 | No 0					
Q1 (b) Software Required	Yes 2 | No 0					
Q1 (c) Technical Support	Yes 2 | No 0					
Q1 (d) Internet Connectivity	Yes 2 | No 0					
Q2 (a) Funding accessible	Yes 2 | No 0					
Comments:						
	1 poor	**2**	**3** good	**4**	**5** excellent	
Q2 (b) Program integration capacity						
Q2 (c) Long-term program plan						
Q2 (d) Program availability to clients / learners						
Comments:						
	Component Sub-Score:					
	TOTAL COMPOSITE iRI SCORE:					

Instructor Standards / Criteria

1) There is funding available at the partner agency to retain an instructor to allocate time to the program during and after the program implementation.

How much funding is required?
Does start-up require more staff funding than regular operational costs?
Would the instructor be contracted or FT staff?

2) The instructor has been trained on the delivery of the course to a comfort level that they can:

a) implement the program independently
b) modify the program to support various learners
c) train others to deliver the program (succession planning)

How is the level of training measured?

3) The instructor is preparing the learners for, and facilitating, work force entry (work placements at IWSO only)

4) The instructor is selecting participants who are "a good fit" to succeed in the program

5) The instructor works collaboratively and respectfully with iSisters

Partner Standards / Criteria

The partner is in the following phase (choose one):

1. Planning and design
2. Implementation
3. Sustainability

The partner has adhered to all elements of the partnership agreement:

a) provision of a secure location for the learning centre
b) provided internet access and technical support for new technology
c) supported iSisters with funding applications
d) provided organizational and learner feedback and testimonials
e) the partner has demonstrated their ability and willingness to take ownership over the program

f) the partner has provided a link from their website to the iSisters website
g) the partner supports iSisters on media related activities that are mutually beneficial

Completion rates for participants in the program are:

a) 50-60%
b) 61-70%
c) 71-80%
d) 81-90%
e) 91-100%

Post participation success: Participants in the program are deemed successful if within 3-6 months they have: gained employment, enter a new learning program, completed a successful work placement or engaged in an alternative growth activity. The percent of participants in this program that fall into this category is:

a) Less than 50%
b) 50-60%
c) 61-70%
d) 71-80%
e) 81-90%
f) 91-100%

The partner works collaboratively and respectfully with iSisters

Capacity Building Standards / Criteria

Technical

The partner has:

a) hardware required to run the program
b) software required to run the program
c) technical support established
d) reliable and consistent internet connectivity

Program

The partner has:

a) integrated the iSisters program into core services for clients
b) obtained and allocated funding to support the program (staff and admin costs)
c) a long term plan (3-5 years) for the support of the program
d) the program is available to community members served by the partner agency

Disclaimer: The above document has been included in its original printed state for reference within this report.

Appendix 5: Conference Board of Canada Employability Skills 2000+

The skills you need to enter, stay in, and progress in the world of work—whether you work on your own or as a part of a team.
These skills can also be applied and used beyond the workplace in a range of daily activities.

Fundamental Skills The skills needed as a base for further development You will be better prepared to progress in the world of work when you can:	**Personal Management Skills** The personal skills, attitudes and behaviours that drive one's potential for growth You will be able to offer yourself greater possibilities for achievement when you can:	**Teamwork Skills** The skills and attributes needed to contribute productively You will be better prepared to add value to the outcomes of a task, project or team when you can:
Communicate • read and understand information presented in a variety of forms (e.g., words, graphs, charts, diagrams) • write and speak so others pay attention and understand • listen and ask questions to understand and appreciate the points of view of others • share information using a range of information and communications technologies (e.g., voice, e-mail, computers) • use relevant scientific, technological and mathematical knowledge and skills to explain or clarify ideas **Manage Information** • locate, gather and organize information using appropriate technology and information systems • access, analyze and apply knowledge and skills from various disciplines (e.g., the arts, languages, science, technology, mathematics, social sciences, and the humanities) **Use Numbers** • decide what needs to be measured or calculated • observe and record data using appropriate methods, tools and technology • make estimates and verify calculations	**Demonstrate Positive Attitudes & Behaviours** • feel good about yourself and be confident • deal with people, problems and situations with honesty, integrity and personal ethics • recognize your own and other people's good efforts • take care of your personal health • show interest, initiative and effort **Be Responsible** • set goals and priorities balancing work and personal life • plan and manage time, money and other resources to achieve goals • assess, weigh and manage risk • be accountable for your actions and the actions of your group • be socially responsible and contribute to your community **Be Adaptable** • work independently or as a part of a team • carry out multiple tasks or projects • be innovative and resourceful: identify and suggest alternative ways to achieve goals and get the job done • be open and respond constructively to change • learn from your mistakes and accept feedback • cope with uncertainty	**Work with Others** • understand and work within the dynamics of a group • ensure that a team's purpose and objectives are clear • be flexible: respect, be open to and supportive of the thoughts, opinions and contributions of others in a group • recognize and respect people's diversity, individual differences and perspectives • accept and provide feedback in a constructive and considerate manner • contribute to a team by sharing information and expertise • lead or support when appropriate, motivating a group for high performance • understand the role of conflict in a group to reach solutions • manage and resolve conflict when appropriate **Participate in Projects & Tasks** • plan, design or carry out a project or task from start to finish with well-defined objectives and outcomes • develop a plan, seek feedback, test, revise and implement • work to agreed quality standards and specifications • select and use appropriate tools and technology for a task or project • adapt to changing requirements and information • continuously monitor the success of a project or task and identify ways to improve

Think & Solve Problems • assess situations and identify problems • seek different points of view and evaluate them based on facts • recognize the human, interpersonal, technical, scientific and mathematical dimensions of a problem • identify the root cause of a problem • be creative and innovative in exploring possible solutions • readily use science, technology and mathematics as ways to think, gain and share knowledge, solve problems and make decisions • evaluate solutions to make recommendations or decisions • implement solutions • check to see if a solution works, and act on opportunities for improvement	**Learn Continuously** • be willing to continuously learn and grow • assess personal strengths and areas for development • set your own learning goals • identify and access learning sources and opportunities • plan for and achieve your learning goals **Work Safely** • be aware of personal and group health and safety practices and procedures, and act in accordance with these	

Disclaimer: The above document has been included in its original printed state for reference within this report.

Appendix 6: ISTE-NETS

International Society for Technology in Education National Education Standards for Students (2007)

1. Creativity and Innovation

Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology.

Students:

a. apply existing knowledge to generate new ideas, products, or processes.
b. create original works as a means of personal or group expression.
c. use models and simulations to explore complex systems and issues.
d. identify trends and forecast possibilities.

2. Communication and Collaboration

Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others.

Students:

a. interact, collaborate, and publish with peers, experts, or others employing a variety of digital environments and media.
b. communicate information and ideas effectively to multiple audiences using a variety of media and formats.
c. develop cultural understanding and global awareness by engaging with learners of other cultures.
d. contribute to project teams to produce original works or solve problems.

3. Research and Information Fluency

Students apply digital tools to gather, evaluate, and use information. Students:

a. plan strategies to guide inquiry.
b. locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media.
c. evaluate and select information sources and digital tools based on the appropriateness to specific tasks.
d. process data and report results.

4. Critical Thinking, Problem Solving, and Decision Making

Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources. Students:

a. identify and define authentic problems and significant questions for investigation.
b. plan and manage activities to develop a solution or complete a project.
c. collect and analyze data to identify solutions and/or make informed decisions.
d. use multiple processes and diverse perspectives to explore alternative solutions.

5. Digital Citizenship

Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior.

Students:

a. advocate and practice safe, legal, and responsible use of information and technology.
b. exhibit a positive attitude toward using technology that supports collaboration, learning, and productivity.
c. demonstrate personal responsibility for lifelong learning.
d. exhibit leadership for digital citizenship.

6. Technology Operations and Concepts

Students demonstrate a sound understanding of technology concepts, systems, and operations.

Students:

a. understand and use technology systems.
b. select and use applications effectively and productively.
c. troubleshoot systems and applications.
d. transfer current knowledge to learning of new technologies.

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Appendix 7 : List of Acronyms and Terms Used

ABI	Advanced Business Interiors
CBC	Conference Board of Canada
CFO	Community Foundation of Ottawa
Cornerstone	Cornerstone Shelter and Housing for Ottawa's Homeless Women
FCF	Frank Cowan Foundation
IBM	IBM Computers
ICT	Information Communication Technology
iSisters	iSisters Technology Mentoring
ISTE-NETS	International Society for Technology in Education – National Educational Technology Standards
iRI	iSisters Readiness Inventory
IWSO	Immigrant Women Services – Ottawa
OTF	Ontario Trillium Foundation
PD	Professional Development
TI	Tungasuvvingat Inuit
USB	a flash memory stick, sometimes called a thumb drive
Youville	Youville Centre

Appendix 8 : Conference Board of Canada Research Study

The Conference Board of Canada
Insights You Can Count On

Case Study December 2004

Community-based Learning Opportunities for Aboriginals Winner, 2004

Connecting Women in Need with ICT Skills

OVERVIEW

iSisters Technology Mentoring Inc. is a Canadian charitable organization founded in 2001 by a group of teachers who wanted to contribute to their community. iSisters work as mentors to empower women through technology—broadening their career options and access to information in a knowledge-based economy. They partner with local non-profit organizations to build sustainable technology-mentoring programs for targeted learners, especially women in need who would otherwise be unable to access or afford them.

The Tungasuvvingat Inuit Technology Mentoring Program, developed in partnership with the Tungasuvvingat Inuit Community Centre, helps unemployed and underemployed Inuit women obtain technology training that improves their career skills and helps them find jobs.

OBJECTIVES

The program aims to develop and implement a new program for Inuit women focusing on information and communications technology (ICT), employability skills

The Education and Learning case studies examine outstanding education and learning programs and initiatives. This case study addresses community learning.

Name of Program
iSisters Technology Mentoring Inc.

Date Established
2001

Skills Developed
Information and communications technology
Problem-solving
Critical thinking
Media literacy

Contact
Cathy Reid
Executive Director
iSisters Technology Mentoring Inc.
117 Holmwood Ave.
Ottawa, ON K1S 2P1
Tel.: (613) 565-7337
E-mail: creid@isisters.org

EDUCATION AND LEARNING

and lifelong learning. The more specific objectives of the program are to:

- Provide technology learning opportunities for unemployed or underemployed Inuit women, with a strong focus on acquiring employability skills;
- Provide a customized technology-based program for its non-profit partner that supports its mission of providing employment and training assistance;
- Encourage lifelong learning and empower Inuit women with broader career opportunities through technological awareness;
- Improve the self-esteem of the participants; and
- Provide real-world experience and the opportunity to apply information and communications technology skills.

TARGET GROUPS

iSisters connects women in need with technology, chiefly through mentoring. The primary learner group targeted by this program is Inuit women facing economic, social or academic barriers. The current non-profit partner organization for the technology-mentoring program is the Tungasuvvingat Inuit Community Centre.

ACTIVITIES

Using a model framework and collaborating closely with each non-profit partner organization, iSisters creates customized technology-mentoring programs. The iSisters program model includes three basic stages of development with key activities linked to each stage:

FOUNDATION ACTIVITIES

- Work with each new non-profit partner organization to develop program objectives, target learner needs and define roles and responsibilities; and
- Sign a partnership agreement which states that the non-profit partner organization will eventually take over the management of the program with support from iSisters.

IMPLEMENTATION ACTIVITIES

- Market the program to targeted learner groups;
- Conduct the program activities; and
- Evaluate individual and overall program success.

SUSTAINABILITY ACTIVITIES

- Look for ways to maintain interest and support for the program on a long-term basis;
- Work with partner agency staff to transfer the knowledge and skills needed to run the learning program independently; and
- Apply for external funding from appropriate agencies.

In the case of the current partner organization, Tungasuvvingat Inuit, seven courses are offered to Inuit women through the Employment Learning Centre. Programs use a blended learning approach that includes on-site teaching, on-line mentoring and self-directed e-learning. Courses cover a variety of ITC and personal management topics, including computer basics, using the Internet for research, word processing, keyboarding and critical thinking skills. Participants can register for courses that run for up to three months, or they can drop in for less formal learning sessions to build skills and then join a more advanced program later. Learning opportunities are provided for all learners, regardless of their level of experience or education.

RESOURCES

Tungasuvvingat Inuit, in partnership with iSisters, received renewable funding from the School Net for Youth Employment Initiative. The Employment Learning Centre, where the program is run, uses new computer hardware, software tools and high speed Internet to support learning and skills development. The computers were donated by IBM, with software provided by the Nectar Foundation, Microsoft Canada and ePals. The furniture was donated by Advanced Business Interiors. The Community Foundation of Ottawa funds the centre, which is open for learning opportunities five days a week.

A certified teacher, with additional qualifications in special education and adaptive technologies, acts as an on-site technology mentor and program designer. An Inuit woman works full-time in the centre, supporting the critical daily functions of the learning program and helping design appropriate courses for the targeted learners. Having an Inuit woman in a leadership role—teaching other Inuit women—inspires the learners to succeed in their own learning and career goals.

INNOVATIONS

Several innovative ideas keep the iSisters technology-mentoring program fresh and relevant for the targeted learner group of Inuit women, and for the partnering organizations that play an important supportive role in the community. The program:

- Provides access to new technologies and learning opportunities on-site, at a community non-profit organization that supports the target group;
- Builds a customized technology-mentoring program based on the specific needs and interests of the learners and clients;
- Uses an Inuit woman in a leadership role to inspire participants;
- Allows learners to progress at their own pace and to use their own preferred learning style;
- Is modified and adapted on an ongoing basis to meet the changing needs of the participants and the host site;
- Uses on-line mentoring to support the non-profit partners as they become responsible for its delivery and sustainability;
- Provides electronic resources and an e-learning environment; and
- Offers customized and innovative on-site classes each week in the Employment Learning Centre.

BARRIERS

There is limited access to technology programs customized to meet the unique needs of Inuit women. In addition to a lack of affordable on-going technology learning opportunities, these women find it difficult to attend learning sessions because of a variety of issues including child care and transportation. As a result, scheduling, access, and funding present significant barriers to participating in traditional information and communications technology programs.

Moreover, many of the learners entering the program have limited or no experience using the Internet or e-mail. Most individuals from the targeted learner group have not completed high school, and have difficulty communicating, orally and in writing, in English. Therefore, literacy and basic skills upgrading must be addressed to facilitate the technology training portion of the learning program.

SOLUTIONS/KEYS TO SUCCESS

There are very real challenges associated with providing accessible technology education to Inuit women in need. The iSisters' program tackles these challenges in practical and responsive ways. It recognizes the needs and abilities of program participants and builds success through:

- Basic Skills Development. The technology-mentoring program is based on the Conference Board's Employability Skills guidelines as well as on the International Society for Technology Education's national education technology standards.
- Mentoring. Inuit learners are coached and mentored by an Inuit woman who understands their cultural background and environment.
- Flexibility. Learners may register for formal classes or attend on a drop-in basis, depending on their learning preferences and availability.
- Access. Learners receive free bus tickets to make it easier for them to get to classes, which are held at a central location, the Employment Learning Centre.
- Sustainability. The partnership agreement with the community organization stresses sustainability and helps move the program toward independence from iSisters.
- Resource Ownership. All program materials and learning resources continue to be available on-line for program partners and learners once iSisters has transferred ownership of the program over to the partner organization.

OUTCOMES

In the program's initial six months, 24 adult learners completed the customized technology-mentoring program and 100 Inuit participated in individual training sessions at the Employment Learning Centre. Formal marketing efforts and word-of-mouth promotion by previous participants has attracted new adult learners, with the program showing a steady increase in the number of participants. In addition to the very positive outcomes for Inuit women participating in the program, the partnering organization has gained new technology and program management skills.

Participating in the program has allowed learners to:

- Improve their employability skills;
- Gain personal confidence when using technology in adaptable, strategic ways;

- Learn how to access and navigate the Internet;
- Measurably improve keyboarding skills;
- Learn to send, receive and manage e-mail using proper netiquette;
- Locate, gather and store information electronically;
- Share information using a range of information and communication technologies;
- Gain word processing skills; and
- Use a range of information and communications technologies to research, produce and communicate information.

Hosting the program has allowed partner organizations to:

- Contribute to the knowledge base of the community;
- Acquire skills and knowledge to use technology strategically in their own organizations; and
- Receive coaching on how to manage an on-site technology-mentoring program.

IMPACTS AND BENEFITS

A number of positive impacts and benefits have resulted from the program:

- The needs of Inuit seeking employment are being addressed;
- For the targeted learner group, new opportunities for learning experiences have levelled the employment playing field;
- Learners gained increased self-esteem and improved employability skills;
- Learners gain and maintain meaningful employment;
- On-site teaching, on-line mentoring support and customized resources are provided to stakeholders in a web-based learning environment;
- Resources created in the technology learning programs are compiled and made available to other learners; and
- Technological expertise is shared with partner organizations.

USE AS A MODEL

The iSisters' e-learning environment, "iTeachnology", is an integral part of providing a sustainable learning program for the partner organizations. The environment allows for all of the learning materials to be made available to program partners and learners on a long-term basis, when the partner organization is leading the program, independent of iSisters. The partnership agreement and the technology learning platform help partner organizations to lead the program to sustainable independence. The e-learning space of "iTeachnology" can be customized and made available to other communities wanting to implement and take ownership of similar learning programs.

About the Education and Learning Case Studies

The Education and Learning case studies examine outstanding education and learning programs and initiatives. The case studies provide in-depth analysis of the methods used to develop, assess, implement and deliver education and lifelong learning in schools, colleges, universities, workplaces and communities. They focus on goals, activities, resource requirements, achievements and outcomes, benefits, innovations, and keys to success and challenges.

This case study addresses the theme of community learning and highlights an award winner from the Community Learning Awards, funded in part by the Office of Learning Technologies, Human Resources and Skills Development Canada.

Community-based Learning Opportunites for Aboriginals Winner, 2004: Connecting Women in Need with ICT Skills
by *Alison Campbell*

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The Conference Board of Canada
Insights You Can Count On

255 Smyth Road, Ottawa, ON K1H 8M7 Canada
Tel. (613) 526-3280 • *Fax* (613) 526-4857 • *Inquiries* 1-866-711-2262

The Conference Board, Inc. 845 Third Avenue, New York, N.Y., 10022-6679 U.S.A. *Tel*. (212) 759-0900 • *Fax* (212) 980-7014 • www.conference-board.org
The Conference Board Europe Chaussée de La Hulpe 130, Box 11, B-1000 Brussels, Belgium *Tel*. (32) 2.675 54 05 • *Fax* (32) 2.675 03 95
The Conference Board Asia–Pacific 2802 Admiralty Centre, Tower 1, 18 Harcourt Road, Admiralty Hong Kong SAR *Tel*. (011) 852 2511 1630 • *Fax* (011) 852 2869 1403

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For more information about this Case Study, please contact us at the numbers listed above.
Case Studies summarize the key findings of Conference Board research and outline the implications for member organizations.

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Final Report of the iSisters' Program Evaluation for the Canadian Council on Learning 2009

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