

K. Tompkins and Associates Ltd.

Specialists in Education and
Training for Adults,
Curriculum Development and
Evaluation Research
Box 2851 Yellowknife,
NWT X1A 2R2
867-873-4369
kate@theedge.ca

PRE-TRADES TRAINING FOR NORTHERN WOMEN

**An Inventory of Existing Pre-Trades Training Programs for
Women in the Yukon Territory, the Northwest Territories, and
Nunavut Territory.**

**Commissioned by the
Northern Territories Federation of Labour**

With Generous Funding From:

The Canadian Council on Learning

The Adult Learning, Literacy and Essential Skills Program, from Human Resources and
Social Development Canada

March 31, 2008

ACKNOWLEDGEMENTS

We thank the following agencies for their kind and generous financial support for this project:

- The Canadian Council on Learning.
- The Adult Learning, Literacy and Essential Skills Program, from Human Resources and Social Development, Government of Canada

We thank the following agencies for their generous in-kind support for this project:

- The Northern Territories Federation of Labour
- Nunavut Employee's Union
- K. Tompkins and Associates Ltd.

We thank the Yukon Women in Trades and Trades group for their assistance with research conducted in the Yukon Territory.

We thank all of the many contributors who shared their experience and accumulated wisdom with us.

We thank all of the “Grandmothers”, the pioneer women working in trades occupations, who have served as role models for our northern women to follow as they create new work traditions in the Arctic.

TABLE OF CONTENTS

ACKNOWLEDGEMENTS.....	2
TABLE OF CONTENTS	3
EXECUTIVE SUMMARY	5
BACKGROUND	7
PURPOSE OF THE RESEARCH.....	7
METHODOLOGY.....	10
RESEARCH QUESTIONS	10
APPROACH	11
CONTRIBUTORS TO THE STUDY	11
LIMITATIONS	16
STUDY RESULTS	17
AN INVENTORY OF TRADES PREPARATION PROGRAMMING FOR NORTHERN WOMEN	17
<i>The Yukon Women in Trades and Technology (WITT) Programs.....</i>	<i>17</i>
<i>The Yukon College and Yukon WITT's Women Exploring Trades and Technology Project (WETT)</i>	<i>18</i>
<i>The Yukon College's Apprenticeship Preparation Program.....</i>	<i>18</i>
<i>Yukon College's Northern Research Institute</i>	<i>19</i>
<i>Yukon Apprenticeship, Trades Certification and Training Programs</i>	<i>19</i>
<i>The Liard First Nation Women in Trades Program</i>	<i>20</i>
<i>Skills Canada Yukon</i>	<i>20</i>
<i>The Yukon Mine Training Association.....</i>	<i>21</i>
<i>The Yukon Federation of Labour.....</i>	<i>21</i>
<i>Whitehorse Motors</i>	<i>22</i>
<i>Government of the Yukon, Department of Energy, Mines and Resources' Jobsite Transportation Fund</i>	<i>22</i>
<i>The NWT Status of Women's Women in Mining, Oil and Gas Pilot Project</i>	<i>22</i>
<i>Aurora College's Programs</i>	<i>23</i>
<i>The Yellowknife Catholic Schools' Kimberlite Career and Technical Center.....</i>	<i>24</i>
<i>Yellowknife Education District 1's Career and Technical Studies Programs</i>	<i>25</i>
<i>NWT Apprenticeship and Occupational Certification Board.....</i>	<i>25</i>
<i>The NWT Native Women's Association's Pre-Trades and Pre-Employment Training for Women....</i>	<i>26</i>
<i>The Northwest Territories Mine Training Society's Underground Mining Courses</i>	<i>26</i>
<i>Smart Communities Society</i>	<i>26</i>
<i>Nunavut Arctic College's Planned Programming</i>	<i>27</i>
<i>Northern Alberta Institute of Applied Technology (NAIT)</i>	<i>27</i>
BEST PRACTICE GUIDELINES FOR NORTHERN PROGRAMS	28
<i>Regarding The Facility:</i>	<i>28</i>
<i>Regarding The Instructors and Staff:</i>	<i>28</i>
<i>Regarding Administration and Management:</i>	<i>28</i>
<i>Regarding The Program Features:.....</i>	<i>29</i>
COLLABORATION MODELS FOR PRE-TRADES TRAINING FOR WOMEN.....	30
<i>The NWT's Women in Mining, Oil and Gas Project</i>	<i>30</i>
<i>The Northern Territories Federation of Labour's Women in Trades Research Projects.....</i>	<i>31</i>
<i>The Yukon Women Exploring Trades and Technology Project (WETT).....</i>	<i>31</i>
<i>The Liard First Nations Women in Trades Project</i>	<i>32</i>
SOURCES OF FUNDING FOR PRE-TRADES TRAINING FOR WOMEN	34
<i>Federal Funding Programs.....</i>	<i>34</i>
<i>Territorial Funding Sources</i>	<i>34</i>

THE POSSIBLE ROLE OF DISTANCE EDUCATION FOR DELIVERING PRE-TRADES TRAINING	36
<i>The Challenges for all Three Northern Territories</i>	36
<i>The Yukon Experience</i>	37
<i>The Nunavut Experience</i>	38
<i>The Northwest Territories Experience</i>	39
MAKING DISTANCE EDUCATION SUCCESSFUL.....	40
<i>Current Technology Options for Pre-Trades Training Delivery</i>	40
<i>The Facilitation Model</i>	43
<i>The Curriculum</i>	44
ANSWERING THE RESEARCH QUESTIONS.....	46
COMMENTS FROM CONTRIBUTORS	49
SURVEY QUESTIONNAIRE	49
NUNAVUT CONTRIBUTORS	51
NORTHWEST TERRITORIES	59
YUKON TERRITORY	125

EXECUTIVE SUMMARY

Within the next ten years, a very large number of new trades people will be required to fill jobs in the mining, oil and gas, and construction sectors and their spin off activities in the Yukon, the NWT and Nunavut. Unless northern women are prepared to enter trades occupations in large numbers, those positions will probably be filled by workers from out-of-territory, and possibly from out-of-the-country.

Learners face many challenges in the north that learners elsewhere do not encounter. Women face special challenges that northern men do not face, or least not to as great an extent. In addition, there are special challenges for women who want to explore trades as an option.

Pre-trades training initiatives for women in southern Canada are able to attract students with high literacy levels, who have already worked through their personal issues, and are committed to a career in the trades. Their models require significant modification to lead to successful learning and career development for northern women.

This project is part of a multi-year initiative whose overall objective is to encourage women to enter trades, technical and industry occupations in the Northwest Territories, the Yukon and Nunavut. The objectives of this phase of the initiative were to support northern training providers, such as Aurora College, Yukon College and Nunavut College, women's and advocacy groups, and union organizations, with resources to enhance their capacity to deliver successful pre-trades training to northern women.

The project team researched existing training initiatives in the Northwest Territories, the Yukon and Nunavut to assess what training currently exists for women entering trades, technical and industry occupations, to assess what works and why, and to identify the most suitable role for community organizations to play to enhance successful learning for women. The team also researched possible distance education software, infrastructure and approaches for pre-trades training for northern women, to determine what is being used or could be used to enhance the success of learning for women in isolated northern communities.

There are some promising programs operating in the Yukon and the Northwest Territories to introduce northern women to trades. Nunavut Arctic College is planning to make trades training for women a focus at their new facility in Rankin Inlet. A number of other initiatives open to both men and women can also assist those wanting to explore their career options. The successes and lessons learned by these initiatives are detailed in this report. Staff of operating pre-trades training programs for women offer their advice about what is needed to make such an initiative work for women in our three northern territories.

Four different models for multi-partner collaboration that have worked for northern initiatives are discussed.

Broadband communication infrastructure is in place in all three northern territories, however the number one challenge for offering distance education is still the current status of the technological infrastructure in the communities. Hands-on skills present some unique challenges of their own for successful learning by distance education, however Yukon College has completed a successful pilot delivery by videoconference of its Apprenticeship Preparation Program, which includes some hands-on learning. This pilot serves as an example of what can be accomplished with distance delivery of pre-trades training. Other viable options that can be implemented right now include SKYPE and videocams. Interactivity is critical: students need to be able to talk with instructors in real time.

One of the keys to successful distance education is the facilitation model. It appears to be critical to have someone qualified in the same room with the student to provide face-to-face assistance and support. Another key is structured expectations for student attendance and accountability.

Another factor that requires attention is the curriculum. Courses designed for traditional classrooms do not always translate well for distance delivery. Course designers have a number of additional factors to keep in mind when developing programs to be delivered by distance.

The appendix to this report includes verbatim comments from contributors from the Yukon, the Northwest Territories and from Nunavut.

A companion document, *Best Practices for Northern Programs*, a how-to guide for those wanting to develop a pre-trades training program for northern women, should be available in April 2008.

BACKGROUND

Purpose of the Research

According to Statistics Canada, within the next ten years, at least 50,000 new trades people will be required to fill jobs in the mining, oil and gas, and construction sectors and their spin off activities in the NWT, the Yukon and Nunavut. Almost all of the major industry projects coming will be operated at isolated camps, far from communities and off all territorial infrastructure amenities such as roads, power, phone, internet access. Camps will be self-sufficient in all regards. Employees work in rotation cycles, such as two weeks in, two weeks out. While mine sites provide some workplace training, especially in literacy and numeracy skills, and in skills specific to the operation, much learning happens on employees' own unpaid time, in their home communities, at home or at adult education centers operated by the Yukon, Aurora and Nunavut Colleges. While many communities will be equipped with broadband capability by the fall, communities are not yet set up to make full use of it and few homes own computers.

Learners face many challenges in the north that learners elsewhere do not encounter. Women face special challenges that northern men do not face, or least not to as great an extent. Challenges include:

- Cultural prerogatives that value employment and education for women differently than for men.
- Poor family and community support for women doing “men’s work”.
- Inappropriate use of drugs and alcohol while away from work.
- Addiction, abuse, self confidence and self esteem issues.
- An almost complete lack of day care facilities.
- Weak community technical infrastructure, lack of access to computers.
- High costs of travel to regional centers.
- Lack of available housing for out-of-town students.
- Family care responsibilities that tend to keep women in their home communities.

In addition, there are special challenges for women who want to explore trades as an option:

- Shop facilities are scarce in smaller communities, and there are few jobs available to provide for job shadowing and apprenticeship opportunities locally or even regionally.
- There are very few tradeswomen in the NWT to be role models or teachers.

- Northern programs have far fewer candidates for training than would be attracted to a program in any of the provinces, so obtaining funding is more difficult.
- Many northern women do not have the literacy and numeracy skills to pass the trades entrance exam.
- Many women lack any experience with tools and jobs skills, and many lack any experience of working at any job.
- Many women are still unaware of the opportunities available to them or the benefits of a career in trades and technology.
- Ignorance of the existence or suitability of trades as an employment option for women.

Several existing pre-trades training initiatives for women in southern Canada are able to attract women with high literacy levels, who have already worked through their personal issues, and are committed to a career in the trades. Their models require significant modification to lead to successful learning and career development for northern women.

This project is part of a multi-year initiative whose overall objective is to encourage women to enter trades, technical and industry occupations in the Northwest Territories, the Yukon and Nunavut. Activities in the first two years have included:

- Research into the status of women's involvement in trades, technical and industry occupations in the NWT and Nunavut, identifying barriers to women's participation in the mining, oil and gas and construction sectors, and identifying feasible strategies for increasing women's participation.
- Research into training initiatives in all other Canadian provinces and Territories to identify what makes women's trades preparation training programs successful, and to identify what factors contribute to successful learning for southern women.
- Research into existing curricula and training delivery methods used in the north to identify curriculum content and program approaches that lead to successful learning for women.
- Research into creating a model for program design and delivery of trades preparation training for northerners that can lead to successful learning for women.

The objectives of this phase of the initiative were to:

- To support northern training providers, such as Aurora College, Yukon College and Nunavut College, women's and advocacy groups, and union organizations, with resources to enhance their capacity to deliver successful pre-trades training to northern women.
- Research existing training initiatives in the Northwest Territories, the Yukon and Nunavut to assess what training currently exists for women entering trades, technical and industry occupations, assess what works and why, and identify the most suitable role for community organizations to play to enhance successful learning for women.

- Research possible distance education software, infrastructure and approaches for pre-trades training for northern women, to determine what is being used or could be used to enhance the success of learning for women in isolated northern communities.

This report documents the information gathered to address the first two research areas.

Work supported by other funding will address this objective:

- Update and “northernize” an existing curriculum that has been very successful in southern Canada. This curriculum, which will be informed by the current research, is targeted for completion in the summer of 2008.

METHODOLOGY

Research Questions

The questions guiding the research were these:

- What programming for women currently exists, what is availability for women candidates? If there are gaps in the formal education system's offerings, where are they?
- What curriculum, educational delivery approaches, software, printed and audiovisual resources are used and which are recommended?
- What factors are most responsible for successes of programs?
- What advice do existing northern practitioners have for nascent pre-trades programs for women?
- What collaboration currently exists between industry, the Colleges, the schools, and community organizations? In general, how well is it working? What changes would lead to more fruitful collaborations?
- How should pre-trades training programs for women that are developed and delivered by community groups interface with industry and with the schools and college systems? Are there some pieces that are best delivered by the traditional system or by industry, some best delivered by the community? What is the most feasible and helpful role for community organizations to play to ensure success?
- What is the current status of bandwidth expansion plans for isolated northern communities? What role will industry play in planned infrastructure development? What role will isolated mining and oil and gas camps have on northern infrastructure?
- What plans do the schools and college systems and industry have for computer infrastructure in small isolated communities that could be used to deliver some or all aspects of pre-trades training for northern women?
- What software and computer managed delivery systems are currently in use or planned?
- What software and computer managed delivery systems could be introduced to the north for delivering pre-trades training for northern women in isolated communities? Which are most likely to lead to successful learning for northern women?
- What delivery approaches and software are likely to work effectively on the planned community infrastructure and self-sufficient mine site computer networks?

Approach

Potential contributors were identified and provided with a questionnaire to preview. Interviews were conducted both by telephone and face to face. In most cases, interviews were recorded. Transcripts were made available to contributors, some of whom made changes to clarify their comments.

Additional information was gathered by researching public documents (such as annual reports) and websites. Presentations at the February 2007 CONNECT NWT conference provided valuable insight into current infrastructure and the possible future for distance learning in the north.

Contributors To The Study

The following people contributed to the study:

Alex Furlong
President and CEO
Yukon Federation of Labour
#102 – 106 Strickland Street
Whitehorse, Yukon, Y1A 2J5
Phone: 667-6676
Cell: 333-4033
Fax: 633-5558
afurlong@yukonfed.com

Allan Doherty
Exploration Geologist
President – Aurum Geological Consultants Inc.
106A Granite Road
Whitehorse, Yukon, Y1A 2V9
Phone: 667-4168
Fax: 668-2021
aurum@yknet.ca

Allyson Stroeder
Past Executive Director
Kimberlite Career and Technical Center
Yellowknife Catholic Schools
Yellowknife, NT

Annemieke Mulders
Project Co-ordinator
Women in Mining, Oil and Gas
Status of Women Council of the NWT
Yellowknife, NWT
Phone: 920-8993
Fax: 873-0285
am@statusofwomen.nt.ca

Anton Solomon
Team Leader for the Community Services Unit
Services Canada for the Yukon
(HRSDC)
Phone: 667-5083 Ext. #233
Fax: 668-6801
anton.solomon@servicecanada.gc.ca

Barb Curtis, Co-ordinator,
Building Trades Program
Yellowknife Campus
Aurora College
Phone:920-8950
Fax:873-0333
bcurtis@auroracollege.nt.ca

Carol Corbet
Manager
Employment Central
Suite 202, 204 Black Street,
Whitehorse, YT
Y1A 2M9
Phone: 393-8270
Fax: 393-8278
carol-ec@northwestel.net

Cindy Cowan
Director, Academic Studies, Trades &
Community Programs
Nunatta Campus
Nunavut Arctic College
867-979-7278
867-979-7104 (fax)
Email: ccowan@nac.nu.ca

Colleen Proctor
Former Manager of Apprenticeship and
Occupational Certification
Department of Education, Culture and
Employment
Government of the Northwest Territories
upfront@incentre.net

Dagmar Borchardt
Telehealth Co-ordinator
Department of Health and Social Services
Government of the Yukon
Phone: 667-8033
Fax: 667-8338
dagmar.borchardt@gov.yk.ca

Betty Irwin
Former Program Co-Ordinator
Yukon Women in Trades
Box 191-108 Elliott Street
Whitehorse, Yukon
Y1A 6C4
Phone: 667-4441
Fax: 633-5689
betty.irwin@jarwinenterprises.com

Carol Wrigglesworth
Manager, Video Conferencing
Ardicom
3rd Floor 5120 – 49th Street
Yellowknife, NT
Phone: 669-0062
Fax: 669-0852
cwrigglesworth@ardicom.ca

Cate Sills
Executive Director
NWT Literacy Council
Yellowknife, NT
csills@nwtliteracy.ca
867-873-9262

Cynthia Kearns
Coordinator – Women in Trades Program
Liard First Nation
Watson Lake
536-4724 (cell)
dckearns@northwestel.net

Dan Curtis
Executive Director
Skills Canada Yukon
103 Platinum Rd.
Whitehorse, Yukon
Y1A 5M3
Phone: 668-2701
Fax: 668-2704
danc@skillscanada.com

Dave Nugent
Dept. Head – Trades and Technology
Yukon College
Box 2799, 500 College Drive
Whitehorse, Yukon, Y1A 5K4
Phone: 668-8748
Fax: 668-2935
dnugent@yukoncollege.yk.ca

Ed Bergeron
Welding Instructor
Department of Trades and Technology
Yukon College
Box 2799, 500 College Drive
Whitehorse, Yukon, Y1A 5K4
Phone: 668-8761
Fax: 668-2935
ebergero@yukoncollege.yk.ca

Grant Dunham
Coordinator
Distributed Learning
Box 2799, 500 College Drive
Whitehorse, Yukon, Y1A 5K4
Phone: 668-8817
Fax: 668-8814
gdunham@yukoncollege.yk.ca

Heather Dundas
Coordinator - Innovators in the Schools Program
Northern Research Institute
Yukon College
Box 2799, 500 College Drive
Whitehorse, Yukon, Y1A 5K4
Phone: 668-8739
Fax: 668-8805
hdundas@yukoncollege.yk.ca

John Gryba
A/Director - Apprenticeship, Trades Certification
and Training Programs
Yukon Territorial Government
Phone: 667-5133
Fax: 667-8555
john.gryba@gov.yk.ca

David Ittinuar
Manager Trades Training
Nunavut Arctic College
Keewatin Campus
Rankin Inlet, NU
867-645-5503
dittinuar@nac.nu.ca

Faith Whiting
Instructor
Developmental Studies
Yukon College
Box 2799, 500 College Drive
Whitehorse, Yukon, Y1A 5K4
Phone: 456-8605
Fax: 668-8828
fwhiting@yukoncollege.yk.ca

Greg Skauge
Head, CTS Department
Sir John Franklin High School
Yellowknife Education District #1
Yellowknife, NT
Phone: 669-0773
Fax: 873-3630
g_skauge@learnnet.nt.ca

Janet Lee
Project Manager – Yukon Mine Training
Association
3151 C – 3rd Avenue
Whitehorse, Yukon, Y1A 1G1
Phone: 633-6463
Fax: 633-2605
janet@yukonminetraining.com

Joanne McGrath
Co-ordinator,
Education Operations and Development
Department of Education, Culture and
Employment
Government of the Northwest Territories
Yellowknife, NT
Phone: 867-873-7458
joanne_mcgrath@gov.nt.ca

Janet Sainsbury
Senior Instructor, Community Aerodrome Radio
Station Training,
Nunavut Arctic College
Keewatin Campus
Rankin Inlet
Phone: 867-645-5511
jsainsbury@nac.nu.ca

Larry Connolly
Director
Kimberlite Career and Technical Center
Yellowknife Catholic Schools
Phone: 766-2900
Fax: 766-2901
lconnolly@yellowknifecatholicschools.ca

Lynn Standing
President of Women in Trades and Technology
(WITT)
And Electrician
And Director of Facility Management & Regional
Services
Department of Public Works
Government of the Yukon
Phone: 667-3589
Fax: 393-7039
lynn.standing@gov.yk.ca

Maureen Moore
Instructor – Women in Trades Program
Liard First Nations Women in Trades Project
Phone: 334-4031 (cell)
maureen_moore@hotmail.com

Peter Kalyn
Former Training Superintendent
Diavik Diamond Mines

Peter Lawlor
Dean of School of Applied Building Science
Northern Alberta Institute of Applied Technology
Edmonton, Alberta
peterl@nait.ca
780-471-7489

Kim Moreside
Former Director of Training Programs
Native Women's Association Training Center
Yellowknife, NT
kmoreside@hotmail.com

Lorraine Phaneuf
Projects and Research Manager
Status of Women Council of the NWT
Phone: 920-8938
Fax: 873-0285
lorraine@statusofwomen.nt.ca

Margaret Imrie
Vice President, Academics
Office of the President
Aurora College
Fort Smith, NT
867-872-7012
mimrie@auroracollege.nt.ca

Marjorie Copp
Labour Market Programs Services Officer
Advanced Education
Yukon Territorial Government
Box 2703
Whitehorse, Yukon, Y1A 2C6
Phone: 667-8751
Fax: 667-8555
marjorie.copp@gov.yk.ca

Nick Shonewille
Whitehorse Motors
4178 4th Avenue
Whitehorse, Yukon
Y1A 1J6
Phone: 668-3326
Fax: 668-3974
nschonew@whitehoremotors.com

Robyn Hamilton
Policy Analyst
Women's Directorate
Whitehorse
Phone: 667-3026
Fax: 393-6270
robin.hamilton@gov.yk.ca

Shelagh Rowles
Dean of Developmental Studies
Yukon College
Box 2799, 500 College Drive
Whitehorse, Yukon, Y1A 5K4
Phone: 668-8741
Fax: 668-8828
srowles@yukoncollege.yk.ca

Soumeya Movaffagh
Executive Director
Smart Communities Society
Yellowknife, NT
soumeya@looknorth.ca
867- 873- 6451

Walter Brennan
Acting Director Labour Marker Programs and
Services
Advanced Education
Yukon Territorial Government
Box 2703
Whitehorse, Yukon, Y1A 2C6
Phone: 667-5727
Fax: 667-8555
walter.brennan@gov.yk.ca

Ron Sumanik
Acting Director, Corporate Services and
Business Development
Oil and Gas Business Development and Pipeline
Advisor
Department of Energy, Mines and Resources
Government of the Yukon
Phone: 667-5026
Fax: 393-6262
ron.sumanik@gov.yk.ca

Simone Rudge
Instructor Developmental Studies
Yukon College
Box 2799, 500 College Drive
Whitehorse, Yukon, Y1A 5K4
Phone: 456-8606
Fax: 668-8828
srudge@yukoncollege.yk.ca

Tom McBee
Apprenticeship Preparation Program Instructor
Yukon College
Box 2799, 500 College Drive
Whitehorse, Yukon, Y1A 5K4
Phone: 668-8831
Fax: 668-8828
tmcbec@yukoncollege.yk.ca

Limitations

This research was conducted over almost two years. In an overheated northern economy that is in rapid development, things can change rapidly. New initiatives are put in place, and individuals move on to different positions. It is possible that some people or initiatives that might have added to the findings have been missed. We regret any omissions.

Some contact information has not been included in the comments from some contributors because they have since moved to new positions, or retired.

Since the previous phases of this multi-year research project have focused primarily on the NWT, and Nunavut is just getting started with their trades training for women, we chose to give a large focus in this project to the Yukon Territory, which has demonstrated some very promising initiatives in women-in-trades training. They are also leading the way with distance learning delivery for pre-trades training.

STUDY RESULTS

An Inventory of Trades Preparation Programming for Northern Women

Programs briefly described in this section are either specifically designed to prepare women for entering trades or industrial training, or are related, supportive programs that are open to women.

More details on these programs are included in the Comments from Contributors section.

The Yukon Women in Trades and Technology (WITT) Programs

The Yukon Women in Trades and Technology (WITT) is a non-profit education and advocacy organization dedicated to promoting and assisting in the recruitment, training and retention of women in the trades. Yukon WITT provides the following types of activities:

- Exploring Trades workshops for women, which are usually weekend or evening courses in carpentry, welding, sheet metal, and plumbing to give them a taste of what the trades are like.
- Workshops in the schools for girls in topics such as electronics and carpentry to expose the girls to some hands on experiences. These workshops are provided to communities throughout the Yukon Territory.
- Workshops for teachers, to offer suggestions for including trades related information in math and science classes.
- Repair clinics.
- For seven years, their flagship project every year is a conference called *Young Women Exploring Trades*. WITT brings in 120 Grade 8 girls from all around the Territory and offers hands-on trades workshops where they can make projects they can take home with them.

For more information, see comments from Betty Irwin, page 146.

The Yukon College and Yukon WITT's Women Exploring Trades and Technology Project (WETT)

Two years ago, Yukon WITT developed a 16 week, full time course called *Women in Trades and Technology*, which is now being delivered by Yukon College. Women explore five or six different trades in a hands-on format, and also learn about the workplace. The outcome is that when they finish, they will have an idea if they want to go into the trades and also what trade will interest them. This exploration program is at the *pre-pre-employment* training level.

Course titles in the WETT program include *Computer Service, Communications for the Workplace, Intro to Electrical, Red Cross Standard First Aid, Intro to General Mechanics, Intro to Pipe Trades, Rigging and Hoisting, Industrial Safety, Transportation of Dangerous Goods, Tool Safety, WHMIS, Intro to Welding, Intro to Carpentry.*

The program has evolved since it was first developed. The WETT program for next year is taking on some of the characteristics of an apprenticeship program, like the testing of students with the Apprenticeship Entrance Exam. There will be a little more emphasis on mathematics, and on testing of the students, and a little less emphasis will be placed on the communications course, and topics like the gender issues won't be weighted as much. Math and science courses from the Yukon College's Apprenticeship preparation Program will become part of the package.

The steering committee for the WETT program now includes WITT and members from government.

For more information, see comments from Betty Irwin, page 146, Dave Nugent, page 168, John Gryba, page 200, and Ed Bergeron, page 172.

The Yukon College's Apprenticeship Preparation Program

Yukon College's Apprenticeship Preparation Program, or APP, has been a very promising experiment in delivering trades preparation math and science courses to students in remote Yukon Communities by distance education. In the past year, APP was open to every Yukon community through videoconferencing.

Students attend math and science courses in the mornings. In the afternoons, students in Whitehorse attend short courses in WHMIS training, intro to carpentry, small engine repair, rigging and hoisting, welding, basic home electrical wiring. Students in remote communities who are participating in the mornings by videoconference spend the afternoons in whatever short courses are available in their community or working on whatever employment opportunities are available in the community.

For more information, see comments from Faith Whiting, page 177, John Gryba, page 200, Simone Rudge, page 227 and Shelagh Rowles, page 219.

Yukon College's Northern Research Institute

The core goal of the Innovators in the Schools (IITS) program at Yukon College is to engage Yukon K-12 students and teachers with science and technology resources. Their activities include a girls' science club; summer science camps; a Saturday program called "Crazy 'Bout Science", which includes trades related activities; a mentoring program for scientists to assist students to learn about careers in science; Innovators in the Schools, a program which matches scientists and technologist with teachers to provide some hands-on activities in the classrooms; science fairs; a bridge building contest.

For more information, see comments from Heather Dundas, page 193.

Yukon Apprenticeship, Trades Certification and Training Programs

The Yukon Apprenticeship unit is responsible for the training and certification of apprentices in 48 different occupations. About 365 apprentices are registered at this point practicing in approximately 30 trades. No information is available regarding the number of female apprentices.

Yukon students can complete an apprenticeship that is recognized anywhere in Canada and complete the Red Seal certification as well in applicable trades. The Yukon offers in-school training for apprentices in carpentry, and three out of the four levels in electrical in Whitehorse. Other apprentices attend schooling in BC, Alberta or Nova Scotia. Yukon Apprenticeship in-school training is based on the Alberta curriculum, so students often attend school at NAIT, SAIT, Grande Prairie or MacMurray. Yukon students can enter into the Alberta system with full credit.

The Yukon Trades Certification and Training Unit assists Yukon Women In Trades and Technology programs and Yukon College trades preparation with funding and advice on curriculum.

For more information, see comments from John Gryba, page 200.

The Liard First Nation *Women in Trades Program*

The Liard First Nation in Watson Lake, Yukon, has initiated a project to give local women a taste of several trades. They purchased three hotels and a three storey apartment building which required renovations. A program to introduce women to building trades was funded through the Liard First Nation Development Corporation. Students have had the opportunity to work on all phases of the renovation project, and have tried their hands at carpentry, drywall and painting, electrical, trim, carpet and linoleum, and plumbing tasks. The course ended with a workshop on how to start a small repair renovation business of their own. The women left the six week training program with the skills and ability to renovate their own homes or work on-site with a contractor.

For more information, see comments from Cynthia Kearns, page 153 and Maureen Moore, page 210.

Skills Canada Yukon

Skills/Compétences Canada is a national, not-for-profit organization that actively promotes careers in skilled trades and technologies to Canadian youth. Apprentices and youth compete to demonstrate their prowess in a number of trades areas. S/CC partners with industry, labour, education and government to provide a supportive environment to showcase skilled trades and technology.

Skills Canada in the Yukon provides volunteer mentorship for young people who show an interest in trades skills, and skills clubs, facilitated by volunteer journey certified trades people, that meet once or twice a year, to engage youth starting at kindergarten age in hands-on activities, such as these:

- a TV video program in Pelly Crossing to make videos and CD's on HIV and AIDS, Hepatitis C, pre-natal drinking. There are more young women than men in this program.
- A culinary Arts program in Ross River.
- In Ross River, a ticketed heavy duty mechanic teaching welding and small engine repair.

Skills Canada also sponsors Territorial and National level competitions in several trades. In the National competition in Saskatoon this year, Skills Canada Yukon brought home two medals, one in sheetmetal, and one in autobody.

For more information, see comments from Dan Curtis, page 157.

The Yukon Mine Training Association

The Yukon Mine Training Association (YMTA) is a partnership between the mining industry and First Nations, which is intended to develop a skilled workforce in the Yukon, to realize opportunities from mining and resource related activities. All of the aboriginal organizations in the Yukon and northern BC are involved with the Mine Training Association. They provide direct financial assistance for training and will also potentially undertake programs themselves and deliver them. The YMTA is also involved with awareness as well. They work on developing updated program standards and core competencies for mining related occupations.

There are not any mine training programs specifically for women, but women have been involved in their training. Everything they do is open to all Yukoners. The Aboriginal Skills and Employment funding will just be for aboriginal people but there is a strong focus on youth and women. The Yukon Mine Training Association has provided courses in skill areas such as line cutting, heavy equipment operation, safe boating, exploration safety, reclamation work.

To qualify for funding from the Mine Training Association, a project has to be community focused, and work has to come out of it.

For more information, see comments from Janet Lee, page 195 and Alan Doherty, page 132.

The Yukon Federation of Labour

The Yukon Federation of Labour provides several courses that are open to men and women. Some courses deal strictly with WCB and other courses have a mainstream labour education focus.

The Federation of Labour's training center can hold up to 14 comfortably, and comes equipped with projectors, laptops, whiteboards, and flip charts. They rent it out to organizations, to government departments.

For more information, see comments from Alex Furlong, page 125.

Whitehorse Motors

Whitehorse has offered a Women's Car Care Clinic to give women a basic understanding of how their vehicle operates. Participants leave the clinic confident to check their tires, check all their fluid levels, and grease their vehicle.

For more information, see comments from Nick Shonewille, page 212.

Government of the Yukon, Department of Energy, Mines and Resources' Jobsite Transportation Fund

For the last five years or so, the Department of Energy, Mines and Resources has funded a job site transportation or worker mobility fund designed to allow oil and gas rig workers to obtain job experience outside the Yukon. In order to access the rig training, a candidate needs between 7 and 28 days in-class or simulated rig training experience. The fund covers transportation from the Yukon to the location where the on-the-job training is located. Candidates have to be Yukon residents to apply.

For more information, see comments from Ron Sumanik, page 217.

The NWT Status of Women's Women in Mining, Oil and Gas Pilot Project

The Women in Mining, Oil and Gas (WMOG) Pilot Project is in its first year of operation in Yellowknife. The pilot program begins with assessments of potential barriers to participation, like childcare, funding, transportation, housing, and current emotional or family issues; mechanical aptitude; and math, English and science skills. Participants are then invited to join one of two streams.

Stream 1 participants are enrolled in the 12 week *Building Trades Helper* program, delivered by Aurora College, which includes an introduction to the trades; and hands-on skills practice at the Kimberlite Career and Technical Center; and the *Ready to Work North* program, which introduces people to the working environment of the north, gives them some career development skills, some writing skills, and resume skills, and looks at how to conduct oneself in a working environment.

Stream 1 participants take a number of Enhancement Courses, which include *WHMIS*, fork lift training, *Safety and the Young Worker* (rights and responsibilities, kitchen safety, working with electricity), *Standard First Aid and CPR*, and a week of personal awareness and team building.

Stream 1 participants then take a Trades Entrance Exam Preparation course delivered by Aurora College.

For various reasons, women may not be quite ready to enter Stream 1. Stream 2 offers women short exposure courses which provide women with hands-on experience with trades skills at the Kimberlite Career and Technical Center in Yellowknife; upgrading in math, science, and English; and counselling and referrals to address personal issues that might prevent them from being successful in Stream 1, such as additions, childcare and housing issues.

For more information, see comments from Annemieke Mulders and Lorraine Phaneuf, page 65.

Aurora College's Programs

Aurora College's major focus on apprenticeship and trades training is at Thebacha Campus in Fort Smith, although they do some pre-trades training and introductory training programs at the Yellowknife Campus and at the Aurora Campus in Inuvik. Introductory level programs include trades access programs, introduction to mine training, and a pre-technology program. Generally the focus for pre-trades programs is on upgrading preparing to pass the appropriate Trades Entrance Exam. Trades access programs are fundamentally upgrading and offer some trades related courses. They prepare students to try the Level 1 Trades Entrance Exam.

The apprenticeship programs delivered in the NWT are, for the most part, based on the standards used in Alberta, although the NWT Apprenticeship and Occupational Trades Board looks at programs and identifies things that need to be included for the Northwest Territories. Aurora College offers Carpentry, Electrical, Housing Maintainer, Heavy Duty Equipment Technician, and Plumber/Gasfitter and Oil Burner Mechanic apprenticeship programs. After a recent review of technical training, the College has made a major re-investment into trades training with more to come in the future. Planned improvements include new tools and equipment; upgraded training facilities that meet the latest national standards, faculty professional development on the latest industry practices and standards; and a new senior level position that will have College-wide responsibility for apprenticeship and industrial training throughout the NWT.

A program specifically for women, called the Women in Trades and Technology (WITT) program, is based on the Building Trades Helper program. The Building Trades Helper program is a federally funded program geared towards 16 – 30 year old people. Building Trades Helper offers 12 weeks of classroom instruction, ½ time in the carpentry, electrical and plumbing shops, and then ½ time working with *Ready to Work North* and upgrading their carpentry math and reading comprehension skills. Course titles include

Trades Foundation Skills, Introduction to Tools and Materials, Introduction to Carpentry, Introduction to Mechanical Systems, and Introduction to Electrical Systems.

Ready to Work North introduces people to the working environment of the north, gives them some career development skills, some writing skills, and resume skills, and looks at how to conduct oneself in a working environment.

The classroom and shop modules are followed by a 12 week work placement.

The Building Trades Helper program is not intended to prepare participants for access to the trades programs; it is a stand-alone program that deals with basic upgrading, general numeracy and literacy skills. The math in this program is carpentry math, rather than trades math, and basic reading comprehension to ensure participants are able to read and understand a list they are given. Students also learn about general skills such as budgeting. The Building Trades Helper program is included as part of the Status of Women's WMOG project.

Participants in the 17 week Mine Access Training program learn about geology, mining, under ground access, First Aid, WHMIS, Safety and the Young Worker.

Aurora College also provides support services such as a culture room, elders on campus, family and recreational activities, a Students Success Centre that offers academic assistance, and personal counselling services.

Aurora College offers Adult Literacy and Basic Education (ALBE) in six different streams to students wishing to improve their academic skills.

For more information, see comments from Barb Curtis, page 72, and Margaret Imrie, page 107.

The Yellowknife Catholic Schools' Kimberlite Career and Technical Center

The Kimberlite Career and Technical Center in Yellowknife houses several labs and workstations allowing students to experience a wide range of types of skills and occupations. The Center is a part of the Yellowknife Separate School system and serves mostly teens from St. Pat's high school, and some adult students from Aurora College. The Kimberlite Center also is the home for the hands-on training portions of the Women in Mining Oil and Gas project of the Status of Women. The Kimberlite Center offers the following programs:

- Construction Technology
- Small Engine Mechanics
- Multi-Station Technology Lab

- Hairstyling
- Electronics
- Welding
- Skills Canada Territorial Competitions
- Becoming a Master Instructor Program from NAIT
- Academics and life skills geared towards trades and technical occupations
- Summer robotics camp program for children
- Hands-on exploration activities for kindergarten to adult aged learners.

For more information, see comments from Allyson Stroeder, page 59 and Larry Connelly, page 106.

Yellowknife Education District 1's Career and Technical Studies Programs

Sir John Franklin High School offers students programs in computer applications, media studies, TV and video production, electronics, automotives, small engine repair, food studies, business and tech courses, entrepreneurship, legal studies, construction, aviation, and welding. All Grade 9 students come to explore six different options for six week blocks, the last period of every day. Sir John's CTS Department is planning some multi-station lab work.

For more information, see comments from Greg Skauge, page 86.

NWT Apprenticeship and Occupational Certification Board

The Northwest Territories certifies northerners in more than 50 designated trades and 22 designated occupations. For the past several years, there have been approximately 300 apprentices registered in the Northwest Territories. Women typically account for no more, and sometimes less than, 3% of those apprentices. 2007 saw an increase with 13 women out of 314 apprentices, or 9%. NWT Apprenticeship training is based primarily on the Alberta curriculum, with some additional topics to prepare tradespeople for working in an arctic environment.

The Government of the Northwest Territories has developed a program called Ready to Work North for people at entry level. The program is based on the Conference Board of Canada's Employability Skills, Essential Skills and the skills identified by a cross section of industry for entry level workers.

For More information, see comments from Barb Curtis, page 72, Colleen Proctor, page 78 and Margaret Imrie page 107.

The NWT Native Women's Association's Pre-Trades and Pre-Employment Training for Women

The Pre-Trades and Pre-Employment program is for men and women, but mostly women enroll. After initial assessments, students are divided into three streams. One is for those who will need to prepare for the Trades Entrance Exam. The second stream is a literacy program for people at beginning levels in reading and writing. The other stream is Adult Basic Education, for people who are interested in advancing their levels to get into Aurora College but are not yet sure what they want to do. The program also provides a health and exercise course for balance, career classes and a work experience.

For more information, see comments from Kim Moreside, page 98.

The Northwest Territories Mine Training Society's Underground Mining Courses

The Mine Training Society has in the past offered courses in surveyor's assistance, heavy equipment operation and heavy equipment mechanics. In partnership with Aurora College and the mining industry, the Society is now offering a 6 week introduction to underground mining and a 14 week course that will result in an apprenticeship with one of the three diamond mines that have partnered with the Society – De Beers, Diavik and BHP Billiton.

Training involves a simulator known as CyberMINE, which was originally designed to train airline pilots. It has been outfitted with the same console as an underground mining machine that operates as a scoop tram and driller. Using the simulator for training reduces the risk of damage to equipment, or loss of production or injury to employees. It also transcends language and cultural barriers. Trainees can learn new skills without directly focusing on their literacy issues.

Smart Communities Society

Smart Communities is a non-profit organization to develop websites and to promote the use of computer information technology to promote social and economic development of the communities. They are also involved with teaching people in communities how to use the technology they now have in place. Smart Communities is interested in working with organizations that wish to deliver pre-trades training in communities by distance education.

For more information, see comments from Soumeya Movaffagh, page 121.

Nunavut Arctic College's Planned Programming

Arctic Nunavut College is planning a spanking new Trades Training Center for Rankin Inlet. Carpentry will remain at the Nunatta campus in Iqaluit, while other trades will be delivered at the new Kivalik Campus in Rankin. Construction completion of the new facility in Rankin Inlet is anticipated for the end 2009. NAC is currently researching the most fruitful approaches to prepare for trades training for women, which will be given a priority. The College identified residential accommodation as a very important factor in ensuring the success of students, so they spent a good portion of their initial money to implement first a 12 apartment complex that will include a day care facility and a playground. That building will be built before the trades training facility.

The Trades Training Department also has a mine worker training program scheduled in Cambridge Bay for the Kitikmeot Region. The pre-employment modules for Mine Worker and Mine Mill Worker will be coming on line in phases in 2008. Then in 2010, they will implement the apprenticeship component of those trades.

For more information, see comments from David Ittinuar, page 53, Cindy Cowan, page 51 and Janet Sainsbury, page 56.

Northern Alberta Institute of Applied Technology (NAIT)

NAIT offers a wide spectrum of full and part time study, including certificate program training, diploma program training, degree and apprenticeship training, con-ed type offerings, either on-line or face-to-face, or a blended model. Many northern apprentices from all three territories go to NAIT to complete the in-class portions of their training.

NAIT reports that they have seen a considerable increase of women enrolling in their apprenticeship programs over the past five years, to the point where in some trades areas that were mostly male dominated environments, now 30 – 50% of students are women. Their success rate is reported to very good.

For more information, see comments from Peter Lawlor, page 116.

Best Practice Guidelines for Northern Programs

The following features were identified by northern program providers as best practice guidelines for a successful pre-trades program for women in the three arctic territories:

Regarding The Facility:

- Carry out the training in a space which is secure and where noise isn't an issue for others.
- Have an adequate kitchen on site as well as a phone.
- Ensure the training facility can provide all tools and equipment necessary to complete the training. Do not expect instructors to provide their own personal tools for student use.
- Ensure the training facility is equipped for women, such as tables with variable heights, and clothing, boots and hard hats that fit smaller bodies.

Regarding The Instructors and Staff:

- Engage qualified trades people to instruct hands-on components of the project.
- Work with sub-contractors and service providers who understand the concept and are able to support the program and participants appropriately.
- Establish clear and formal agreements with service providers and sub-contractors about the expected responsibilities and commitment, and the nature and timing of services to be provided.
- Ensure that the instructor or instructional sub-contractor is aware of and has input into the budget, project expectations and development of the project.
- Ensure that project staff and instructors are well looked after, especially in remote communities. Ensure adequate housing, access to necessary technology (phone, computer with internet, printer etc.) and a competitive salary.
- Employ female trades instructors whenever possible, to act as role models to women participants, and to demonstrate how women can succeed in trades environments by using their heads.

Regarding Administration and Management:

- Establish clear expectations and policies around salaries, per diem, travel expenses and other financial matters of concern to participants and to staff.
- Engage the involvement and support of many partners, representing industry, government, labour and non-profit organizations.

- Consider having a large, stable organization serve as the “parent” organization, to ensure credibility, longevity and consistency.
- Budget for an emergency housing fund and emergency childcare costs.
- Be clear with participants and funders about what the expected outcomes are for the project. Establish well defined objectives by which to measure the success of the project and the progress of participants.

Regarding The Program Features:

- Engage in active, face-to-face recruiting in communities.
- Develop a pre-screening assessment that takes into account challenges that northern women typically face, and that might be barriers to their success in the program, such as low literacy and numeracy levels, housing and day care needs, substance abuse, family responsibilities, violence, lack of knowledge of and exposure to trades. Ensure that there are clear criteria for participant selection.
- Involve industry in the curriculum development, to ensure their support for future work experience placements, and to ensure that training actually meets the needs of employers, as well as the needs of women participants.
- Ensure that the curriculum meets the standards of the territorial apprenticeship board for content and instructor qualifications. Consider getting the program recognized so that participants can obtain credit towards apprenticeship training.
- Develop curriculum that illustrates the whole scope of a trade and what the expected demand will be for that trade.
- Look beyond just the academics and learning the trades themselves, look at all the personal issues women face as part of the package. Provide a caring, personal environment.
- Provide personal supports and advocacy to solve issues around transportation, housing, childcare, personal counselling, access to funding. Be flexible and supportive with participants, understand that their children are a priority in their life and may require time within the parameters of the project, understand that frequent medical appointments and personal crises may be realities for the participants. Check attendance records daily and keep on top of any issues that arise with the participants.
- Create an emphasis on personal development, workplace communication skills and conflict resolution in a male dominated environment and the ability to work as a team member. Establish clear, constructive communication between all project participants. Be aware of potential conflicts between participants in the same cohort.
- Provide a strong emphasis on hands-on learning of practical skills, use of tools.
- Ensure exploration of a variety of trades areas to allow participants to choose a trade they feel comfortable with. Include only trades for which a sustainable demand is expected in the next few years.
- Provide a monitored work experience using new skills on-the-job with a supportive employer. Screen potential employers for their understanding of the purpose of the work experience and their ability to provide a safe, supportive

work experience. Consider screening potential employers for a workplace gender equity strategy in hiring, training, and HR functions.

- Try to secure work placements with planned community construction projects before they begin.
- Include a unit on career planning, resume writing, interviewing skills.
- Include a unit on starting a small business.
- Include access to learning the academic skills required to pass the trades entrance exam, especially math and science skills.
- Consider providing breakfast & lunch to participants.
- Keep the group size small for good instructor/participant interaction.
- Women-only courses are recommended by most programs, but are difficult to achieve in smaller communities.

Collaboration Models for Pre-Trades Training for Women

In the Yukon and the Northwest Territories, some successful collaborations have emerged that can serve as a model to other organizations and institutions that wish to plan for pre-trades training for women in their own regions.

The NWT's *Women in Mining, Oil and Gas* Project

The *Women in Mining, Oil and Gas* (WMOG) Project is a good example of collaboration among many partners. The parent organization for this project is the NWT Status of Women Council. The WMOG Advisory Committee is supported by industry (the oil industry and all three diamond mines with operations in the NWT sit on the Committee), labour (The Northern Territories Federation of Labour), government (the Government of the Northwest Territories and Aurora College), and non-profit organizations (The Center for Northern Families, the Native Women's Association).

Delivery of the WMOG courses has been contracted to various local organizations, including Aurora College, The Kimberlite Career and Technical Center (Yellowknife Catholic Schools), and the NWT Literacy Council.

Industry will provide work experience opportunities and apprenticeships to program participants.

The project Co-ordinator and administrative support are provided by the Status of Women Council.

Funding has come from a variety of sources, including the Government of Canada, The Government of the Northwest Territories, industry and labour.

Membership on the WMOG Advisory Committee has been somewhat stable and structured. The same organizations have been involved for a few years, and in most cases, the same individuals have attended meetings.

The Northern Territories Federation of Labour's *Women in Trades* Research Projects

The Advisory Committee for this research project has operated somewhat differently than the committee for the WMOG project, although the projects share many of the same organizations and individuals on their advisory committees. The membership of this committee has been quite fluid. Organizations are invited to send as many individuals as they wish to at any time, and different individuals from organizations have attended meetings. Different organizations have been involved at different times.

The benefit of this approach is that the experience and perspectives of many individuals are available to the project. This is particularly valuable when a project is in its planning stages.

Much of the work of the project is reported on by email and personal contact, rather than by regular, formal meetings. Often members participate in meetings by teleconference, so membership has spanned all three territories. This has assisted members outside of Yellowknife to take ideas home to their own communities and territories. Some of the reporting regarding this project has actually been discussed at meetings of the Status of Women's WMOG Advisory Committee, since so many individuals sit on both committees.

The Federation of Labour's *Women in Trades* research projects have also been supported by a consortium of different labour organizations in the Northwest Territories.

The Yukon *Women Exploring Trades and Technology* Project (WETT)

In the Yukon, a collaboration between the Yukon Women in Trades and Technology (WITT), a non-profit organization, and Yukon College has resulted in an amalgamation of two previously success projects. Yukon WITT, which has for several years pioneered a variety of learning initiatives for women to learn about trades as a career option, developed a program called *Women Exploring Trades and Technology*, a 16 week exploration of various trades. Yukon College had for a few years been offering a

program called “Apprenticeship Preparation” which combined academic upgrading in math and science, aimed at the Trades Entrance exam, with some hands-on exploration of various trades taught by the College’s Trades and Technology Department.

This year sees an amalgamation of these two projects. Yukon College will now deliver *Women Exploring Trades and Technology*. The WETT program now includes the math and science courses from their Apprenticeship Preparation Program, and there will be more focus on preparing for the Trades Entrance Exam.

The program was initially co-ordinated by Betty Irwin, the Director of WITT, who has since moved on to other challenges. The Steering Committee for WETT now includes both Yukon WITT and government.

The Liard First Nations Women in Trades Project

The Liard First Nations collaborated with Yukon Women in Trades and Technology (WITT) to develop a hands-on training opportunity for local women. Liard First Nations purchased several buildings in need of renovations, and funded a trades instructor as well as other project expenses. WITT provided advice and assistance with curriculum and project development.

All of these examples of collaboration among diverse partners have reportedly been very successful. One of the suggestions for improving such collaborations was to ensure that large organizations attempt to designate specific people to attend advisory committee meetings. It is somewhat disruptive to have new, uninformed people attend and need some “catch up” information before being able to participate fully. On the other hand, smaller organizations seem to be able to contribute more effectively if representation is somewhat flexible, since individuals tend to wear many hats and often have conflicting time commitments.

One of the observations made by contributors to this research is that finding appropriate trades shop facilities and qualified trades instructors is a major challenge in the northern territories. The Yukon WITT organization has managed to offer hands-on training to women in remote communities, however it has been a significant challenge to transport tools and equipment used for training, and any training delivered must by necessity be sharply focused on to those skills areas that can easily be equipped. Shop facilities suitable for longer term training and exploring a variety of trades are located in only a few communities, and all are operated either by the Colleges or by school boards.

Industry has certainly jumped on board to support training such as the Status of Women’s *WMOG* project but are in most cases they would be unable to offer facilities at their work sites for training purposes, as they are required for day-to-day operations.

The mines do offer training to their own employees, and will probably provide work experience training for *WMOG* graduates, but it would be unrealistic to expect that they get involved with direct delivery of hands-on training for the *WMOG* or any other similar project.

It is very expensive to build and equip new trades training shop facilities, as Nunavut Arctic College is discovering in Rankin Inlet. Consequently, any new pre-trades training project for women that wishes to get established in any of the three northern territories will need to engage in a partnership with either their College or a school board to deliver the hands-on portion of the training.

Some of the academic upgrading can be offered either by the colleges and schools, who are probably best equipped to do so, or by other non-profit organizations. For example, the NWT Native Women's *Women in Trades* programs include upgrading provided by their own staff.

There are other portions of training for women that are probably best delivered by non-profit organizations with the interests of women foremost in their minds. For example, personal counselling, and curriculum units addressing issues such as self confidence and esteem, dealing with personal issues, and communicating effectively in a male-dominated workplace could most effectively be delivered by other women.

It also seems to work well to have an organization dedicated to women in the co-ordination role, as has been the case in the Status of Women's *WMOG*, and Yukon WITT's *Women Exploring Trades* programs.

Sources of Funding for Pre-Trades Training for Women

The following funding sources are among those that have supported pre-trades and related supportive programs in the three northern territories:

Federal Funding Programs

- Strategic Investments in Northern Economic Development, (SINED), The Targeted Investment Program.
- Aboriginal Human Resources Development Agreement (AHRDA).
- HRSDC, Services Canada. The Pan Canadian Innovations Fund.
- Indian and Northern Affairs.
- The Northern Strategy Trust.

Territorial Funding Sources

- The Yukon Government's Department of Advanced Education, Labour Market Development Services, and the Community Training Fund.
- Yukon Energy and the Community Development Fund.
- The Yukon Workers' Compensation Board.
- The Northwest Territories Department of Education, Culture and Employment, the Community Literacy Development Fund.
- Local Band Councils.
- NWT Literacy Council.
- The Diamond Industry: BHP, Diavik Diamond Mines, DeBeers.
- The Yukon Mine Training Society and the NWT Mine Training Society.
- The Public Service Alliance of Canada.

- Yukon Energy Scholarships for Trades (in the areas of electrician, power line technician, electronics technician, heavy duty mechanic, industrial instrument mechanic, industrial mechanics (millwright) or machinist).
- The NWT/Alberta Centennial Scholarships, for students working in registered trades or designated occupations. Preference is given to women applicants. The scholarship is administered by the Government of the Northwest Territories, Department of Education, Culture and Employment.

The Possible Role of Distance Education for Delivering Pre-Trades Training

The Challenges for all Three Northern Territories

The number one challenge offering distance education in all three northern territories is the current status of the technological infrastructure. Finding sufficient bandwidth into the smaller communities in order to provide interactive learning is a problem, and having the money and time to solve the engineering problems associated with trying to make the infrastructure work is also an issue. Educators in all three territories find themselves dealing with outdated infrastructure in schools and adult education centers in the communities. Having people with the skills to diagnose and fix technical issues in communities is also a challenge.

The Yukon has invested heavily in teleconferencing facilities in every community, allowing for interactive distance learning. The promising distance education pilot projects in the Yukon have been delivered by videoconference.

However, the NWT infrastructure does not yet allow for this option. In the NWT, most distance education currently is web-based, which requires that students have good reading and writing skills, often not a strength for students seeking pre-trades training. Distance education has been available to high school students in the NWT for the last six years. However, in some of the communities, until very recently anyway, the internet has not been stable enough or fast enough to offer a bona fide course. Educators complain that it takes so long to load pages and to load documents, that it's not viable.

In Nunavut, brand new infrastructure promises the development of distance education.

Another issue that all three territories would have trying to deliver pre-trades training by distance education would be finding enough students to make it economical to do so. This would be doubly the case for a women-only course. One option would be to open up such a course to additional markets further afield, for example, to include all three northern territories, northern corners of the provinces, perhaps even wider. With such a wide catchment area, a program could be economically feasible, and could attract top-notch teachers.

Teaching by distance has its own inherent challenges. The program developer will need to build in ways to ensure that students have the materials and support they need to learn successfully. Learning by distance is not a solution that works for all learners. Literacy is still a big issue. Distance education delivered by web based applications tends to be heavily text-book based, so good reading and writing skills are required of learners.

Another challenge our three northern territories face is finding educators for the communities with a background in the mining skills which are becoming the backbone of the northern economies. Program developers need to create curricula containing enough resources that the community instructor can successfully facilitate learning locally, to complement training delivered by distance education.

In spite of those challenges however, some very promising pilot projects are emerging that can inspire program planners who want to reach more women in remote areas.

The Yukon Experience

In the Yukon, universal internet access, and video-teleconferencing facilities in almost every community lay the foundation for distance education. The Yukon is leading the way with delivering pre-trades training by distance education, making good use of video-teleconferencing technology.

Yukon College is delivering a wide spectrum of courses by what they call “distributed learning”, including ABE courses, math, English, French and Spanish, computer studies, *Apprenticeship Preparation Program* math and science, *Math for Small Water Operators*, biology, communication skills, business writing, Renewable Resource Management, university transfer courses, anthropology, history, psychology. They are bringing in courses from the University of Victoria, to deliver to people in Carcross and Haines Junction. They have a student doing her PhD work with the University of Regina. They also offer non-credit courses, public interest courses and workshops.

Where they don't have a campus, Yukon College usually partners with another organization, usually a First Nations group. The College buys the equipment, and provides the training; the partner provides the room and the bandwidth and the costs of the connection; the students pay the tuition and buy the books.

Yukon College uses almost any delivery software that will work. For more information on the software and technology Yukon College uses, see comments from Grant Dunham, page 184.

Trades and industrial programs at Yukon College are making use of distributed learning technology, and promising pilots are planned. In particular, the Apprentice Preparation Math and Science courses delivered by distributed learning could easily be used in Nunavut and the NWT, once infrastructure allows.

For more information on trades program using technology for distributed learning, please see comments from Dave Nugent, page 168, John Gryba, page 200, Shelagh Rowles, page 219, Simone Rudge, page 227 and Faith Whiting, page 177.

The Nunavut Experience

In Nunavut, use of the internet has really taken off, with the efforts of the Nunavut Broadband Development Corporation. Nunavut has federal subsidies to support 2000 users, and there are now 3000 users with Qiniq.com accounts. Distance education is now a realistic possibility for Nunavut. Nunavut has made it a priority to strengthen and develop programming that responds to distance education.

However, program planners found that the easiest part was putting in the infrastructure. The hard part was to develop capacity at the local level to actually use it. Models are being developed to consider implementation from technical, social, financial and cultural perspectives. The vision is “How can we have better lives, how can we use this, how do you marry infrastructure with people’s needs?”

The Nunavut plan is aimed at the smallest community with the fewest services, “If it works in Grise Fiord, it works in Nunavut, we can replicate it elsewhere across Nunavut.” They are building for the smallest communities first, not the larger ones where the financial model works. They have used an economic development model, the end users have to benefit from the technical infrastructure financially. They have told users “You are encouraged to use the internet to develop small businesses”, not “You are charged more because you are a business”. Businesses pay the same amount as individual users.

At the CONNECT NWT conference in February, 2007, the Nunavut Broadband Corporation’s primary goals were stated as being the following:

- Research and development for satellite delivered applications.
- Desk top multi-point video teleconferencing.
- Low cost hardware that won’t break down - access via TV for example.
- Easier banking in small communities that do not have banks.
- Affordable access to expanded bandwidth.
- Developing training and educational programs to deliver on the internet.
- Training on how to use the infrastructure, a center of excellence to train on-line on how to use ICT.
- A champion is required to lead the way.

Nunavut Arctic College sees a role for distance education in the future delivery of trades training. They are already set up in Iqaluit with a classroom dedicated to videoconferencing. They are hoping to install similar facilities in Rankin Inlet and in Cambridge Bay, so that they can connect NAC’s main campuses. They are looking at developing new curricula so that it combines learning over the internet with physical resources in the local adult education centers.

For more information, see comments from David Ittinuar, page 53 and Cindy Cowan, page 51.

The Northwest Territories Experience

NorthwesTel has installed networks that can deliver high speed internet capability to 75% of the population of the NWT. Along with wireless technology from other providers, 90% of the NWT population can be served with high speed internet.

Government has their own network, but for individuals and small business, AIRWARE wireless internet is now available across the NWT, except in Yellowknife. NETKASTER wireless satellite is also widely available. A few communities are still waiting for power to run the equipment, but theoretically every community can have access to wireless satellite. With a Vonage wireless phone, communities could operate without any infrastructure at all from NorthwesTel. Already now, people are having on-line assemblies, reporters are filing their stories via email, there is lots of community use of those wireless systems. If hardware systems such as CISCO, which is used at De Beers and BHP, are added to the mix, the current infrastructure can also be used for distance education.

Video teleconferencing is possible, although there might not be sufficient bandwidth to allow several people to be video teleconferencing at the same time. Existing technology may need to expand to handle bigger bandwidth needs for interactive learning approaches. At the moment the only video-teleconferencing facilities that are available to the public are located in Yellowknife, Inuvik and Hay River. There are no plans in the near future for providing facilities in smaller communities.

Another issue for the NWT is trying to get the existing infrastructure to actually work. Small communities still do not have reliable phone service, how can anyone say that IT infrastructure will be reliable? Most purchased broadband packages cannot handle video-teleconferencing – it takes more band width than is available, and there are still some issues on the ground regarding infrastructure.

Consider that smaller communities have had power for only 20 years. The leaps which have happened in technology in the past 20 years are enormous but there is still a great deal that needs to be done before the infrastructure will be universally ready for the demands of interactive distance learning. For example, different departments of the Government of the Northwest Territories are responsible for different parts of the infrastructure. The Department of Public Works is responsible for getting high speed delivery to the school, the Department of Education is then responsible to provide infrastructure within the school. School board offices get involved too. So it requires a concerted effort on a few peoples' part to make sure that what is being delivered to the school is able to be used within the school.

While some communities do not have the infrastructure for distance education, and other communities do not know they have it or do not know what to do with the infrastructure they have. Even in the smallest communities, younger people use existing IT technology to full capacity whenever it is available, in places such as the youth center, the school, the adult ed center. Older people are less interested. They might check their email, but often would not make any further use of the existing technology

Lack of education is also an issue in small communities. Although kids to grannies are using computers in communities, literacy and education issues still limit how much distance learning could actually be absorbed by local people. A student still needs to possess math skills at a Grade 10 or so level to be able to access trades training.

Development of programs and curricula specifically intended to work with technology is needed. Expecting a program that works well in a classroom to translate easily to use in distance education is certain to lead to learning failure. There are some affordable, remote sources of learning programs that are being used in the north.

For example, a partnership between the Sunchild E-Learning Community and Northwest Tel has shown great promise as a demonstration project to provide a remote education environment in Becho Ko. However, made-in the-north packages for distance education for northern learners are still rare.

See also comments from Carol Wrigglesworth, page 74, Joanne McGrath, page 91 and Soumeya Movaffagh, page 121.

Making Distance Education Successful

Current Technology Options for Pre-Trades Training Delivery

There are some options available now for delivering portions of pre-trades training. For example:

1. Use SKYPE and webcams to deliver inexpensive “real time” training. For example:
 - Send a Power Point presentation or video by email about how to use a tool. Student runs the PPT presentation on their computer, and practices on their own, or with the assistance of a local resource person. Student can stop periodically, or at pre-set times, or after completing a specific exercise, to ask questions of the instructor, using the webcam and microphone/speakers.
 - Put a webcam in the local adult education center. Link the webcam to a large screen so that several students can watch at once.

- Instructor delivers a lecture to several students simultaneously at different locations. Several people “conferencing” can then participate in a discussion using webcams.
- Counsellor or coach provides one-to-one consultation to students using webcams.
- Students use SKYPE to chat by text then agree to meet for webcam group discussions.

This technology is now available in all three Territories. AIRWARE makes it possible even in remote communities.

2. Use a website to link to various content sources.
 - When smaller amounts of materials are needed, use a website to link to materials that are stored on a personal computer, a dedicated server, or some other website. Students can download the materials at their leisure. Could include any written material, or short video clips, photographs.
3. Use a web-based software application that can deliver training linked to testing and exercise databases, so that students can progress through a course of specific skills at their own pace. Website management can be contracted out to the provider, so that the service is pretty much “idiot proof” for students to use. Students use an access code to sign in and download exercises and tests. Instructors can access student files to monitor the progress of students and initiate personal communication via internet chat, webcam, email or phone to offer support. There are several software platforms available to make this approach possible. Examples include “Nautikos”, “Autoskill” and “Success Maker”
4. Mail out or email videos, tape cassettes, articles, Power Point Presentations.
5. Use video-teleconferencing facilities. These are available now throughout the Yukon, and in Yellowknife and Fort Smith in the NWT. For example:
 - Yukon College’s Apprenticeship Preparation Math and Science program is delivered this way to communities.
 - Allow students who are attending hands-on tool training or on-the-job work experience training to consult with trades instructors in Fort Smith.
 - Allow students in Fort Smith to view a keynote speaker at a conference in Yellowknife, and to interact with conference participants.

Some options that might be workable in the future include these:

6. Use a content server to store and archive content of various types. For example:
 - On a dedicated server, store information which students can retrieve with an access code at their leisure.

- Text content: assignments, articles, texts, references, polling for opinions on new course content.
- Audio content: recordings of lectures.
- Video content: photographs of completed projects, audio-visual recordings of demonstrations, safety videos, instructional videos accompanying power tools.
- On a dedicated server, a public interface available to anyone can provide information such as registration information, program descriptions and dates, how to contact staff.
- Rent space to store content on someone else's server (eg ARDICOM, or Aurora College). Users have an access code and costs are sent back to the organization renting the space.

It is likely that either Aurora College or the Government of the Northwest Territories will purchase a dedicated server in the next few years. It is likely that Ardicom will purchase a dedicated server to rent space to community organizations and businesses by sometime in 2009.

This approach is used by several Canadian universities and colleges now. Delivery software used includes "CASE" and "Blackboard".

7. Use video-teleconferencing to link smaller communities in the NWT and Nunavut. Currently, there are units available to the public in Yellowknife, Fort Smith and Iqaluit. In some other communities, there are units reserved specifically for Telehealth and for court business. There are no firm plans to provide wider distribution of video-teleconferencing, though discussions are underway between ARDICOM and various organizations. At best, it will be several years before this technology will be widely available to the public in Nunavut and the NWT. The Yukon already enjoys this option for distance education.

Low Bandwidth Demands (Least Expensive)	Medium Bandwidth Demands	High Bandwidth Demands (Most Expensive)
<p>Accessing text from a content server.</p> <p>Using SKYPE and webcams plus a microphone and speakers, or headsets, for conversations, sending low resolution real time images, eg demonstrating safe use of a tool, or lectures.</p>	<p>Accessing audio from a content server.</p> <p>Broadcasting – one way sending of information over video- teleconferencing facility, eg watching a video, or a lecture but no return communication. Number of stations receiving is unimportant.</p> <p>Using SKYPE and webcams plus a microphone and speakers, or headsets, for sending higher resolution real time images, eg such as used in Telehealth, of skin, or inside ears.</p> <p>Use a website to make materials available for download by the student.</p> <p>Use a web-based educational software application.</p>	<p>Accessing video from a content server.</p> <p>Interactive, two way communication over video- teleconferencing, eg a meeting.</p>

The Facilitation Model

Educators with experience in delivering successful distance education speak of the teaching or facilitation model as being of primary importance. The essential pieces seem to be:

- Ensuring regular attendance, having clear expectations of students' participation, tracking attendance and participation, and making learners accountable. Have a specific time when learners are time tabled to attend distance classes.

- Having a supportive resource person on hand with the learners, who can provide face-to-face tutoring and personal support. It might also be helpful to have local role models in the classroom who can encourage successful learning attitudes, work ethic and behaviours.
- Ensure that a qualified instructor or tradesperson assistant is in the remote classroom, beside the student, to help with hands-on activities such as using tools.
- Ensure that two way, interactive communication is possible between instructor and learners.
- Find a way to reduce the requirement for reading a lot of written materials, either on-line or in the remote classroom.

For more information, see comments from Joanne McGrath, page 91, Lynn Standing, page 207, David Ittinuar, page 53, Greg Skauge, page 86, Allyson Stroeder, page 59, and Faith Whiting, page 177.

The Curriculum

The remaining critical piece for successful distance education is the curriculum. Courses that are designed for classroom instruction do not necessarily work well for distance delivery. Here are some of the issues that pre-trades training curriculum developers need to think about:

- Making sure that remote learners can get personal, face-to-face support and assistance in their own communities.
- Ensuring that local hardware can provide learners with an adequate view of physical skills being demonstrated.
- Finding a way to ensure that learners have some opportunity for hands-on practice with the new skills.
- Finding a way to incorporate local work experience into the curriculum.
- Ensuring that learners have adequate local access to tools, teaching props, materials, samples, and any text or manual based materials required for successful learning.
- Finding a way to facilitate frequent communication between learners and instructors and local support people.
- Finding a way to facilitate frequent skills and knowledge testing of learners, and getting that data to instructors, and getting feedback from instructors back to learners, in a timely manner.
- Finding instructors who have experience not only with the content material, but also with teaching by distance.
- Ensuring that learners can access smaller chunks of curriculum at their own pace.

- Ensuring that curriculum meets the standards of the applicable Apprenticeship and Occupation Board for pre-trades training. Expect standards for course content, instructor qualifications, course length, learning materials, facilities and equipment, and occupational health and safety requirements.

For more information, see comments from Margaret Imrie, page 107, Joanne McGrath, page 91, and Faith Whiting, page 177.

ANSWERING THE RESEARCH QUESTIONS

Following is a brief summary of the answers to the questions that guided this research:

What programming for women currently exists, what is availability for women candidates? If there are gaps in the formal education system's offerings, where are they?

There are programs designed specifically to allow women to explore the world of trades occupations and prepare for trades training operating in Whitehorse, Liard, and Yellowknife. Nunavut Arctic College plans to address women's needs in their new trades training center in Rankin Inlet.

Major industry partners such as mines are training women in increasing numbers for occupations specific to their own operations. Academic upgrading programs are available in almost every community in all three northern territories, typically through the three territorial Colleges, but also built into the programs aimed at introducing women to the trades.

What curriculum, educational delivery approaches, software, printed and audiovisual resources are used and which are recommended?

A complete list of recommended resources is included in the companion to this report, *Best Practices for Northern Programs*.

What factors are most responsible for successes of programs? What advice do existing northern practitioners have for nascent pre-trades programs for women?

The features most frequently mentioned by those operating the trades exploration programs in Whitehorse and Yellowknife are similar to the factors that make programs in southern Canada successful, with a few special northern factors taken into consideration. These Best Practices are discussed on page 28.

What collaboration currently exists between industry, the colleges, the schools, and community organizations? In general, how well is it working? What changes would lead to more fruitful collaborations?

Four successful collaboration models at work in the Yukon and the NWT are presented as guides to successful northern partnerships for women's pre-trades programming.

How should pre-trades training programs for women that are developed and delivered by community groups interface with industry and with the schools and college systems?

and

Are there some pieces that are best delivered by the traditional system or by industry, some best delivered by the community? What is the most feasible and helpful role for community organizations to play to ensure success?

Community organizations in the north have succeeded as the “parent” or facilitator of training provided by sub-contractors that include their College and the schools and industry. They have also assisted programs by others to succeed, including a First Nations initiative, and a College sponsored course.

Industry is still the most fruitful venue for work experience, on-the-job training and can also contribute to other tasks, such as curriculum development, community promotion, funding, and on-going support.

Academic upgrading is a necessary piece for northern women, and while mostly delivered by the Colleges, has also been successfully delivered by community organizations, such the NWT Native Women’s Association.

Program units on topics such as workplace communication in a male dominated environment, personal growth, and teambuilding have been successfully delivered by organizations that focus on women’s issues and understand the challenges that women face on a daily basis.

What is the current status of bandwidth expansion plans for isolated northern communities? What role will industry play in planned infrastructure development? What role will isolated mining and oil and gas camps have on northern infrastructure?

Theoretically, every northern community now has access to enough bandwidth to allow for at least some forms of distance education, however issues still remain with outdated hardware, lack of knowledge in communities to manage infrastructure repair issues, lack of understanding of how the technology can be used and how it can benefit users. There is also a lack of curriculum developed that would be suitable for distance delivery. Yukon College has successfully delivered Apprenticeship Preparation courses that can serve as a model for the NWT and Nunavut.

The mining and oil and gas industries appear to be following their own paths with regards to training; their communications infrastructure is expected to remain distinct and separate from the public infrastructure for at least the foreseeable future.

What plans do the schools and college systems and industry have for computer infrastructure in small isolated communities that could be used to deliver some or all aspects of pre-trades training for northern women?

In the Yukon, universal videoconferencing capability makes interactive learning by distance education a feasible prospect now. The NWT has no plans to provide videoconferencing capability in small communities in the foreseeable future. Nunavut plans to include videoconferencing in their infrastructure but current bandwidth capacity would not support widespread use of the technology for distance education. However, other options for distance learning are available in all three territories, using technology such as SKYPE and videocams.

Some promising pilots have demonstrated that at least some portions of hands-on training can be successfully delivered by distance education.

What software and computer managed delivery systems are currently in use or planned? What software and computer managed delivery systems could be introduced to the north for delivering pre-trades training for northern women in isolated communities? Which are most likely to lead to successful learning for northern women?

Yukon College is the pioneer in this regard. They have experimented with a variety of software applications to deliver and manage distributed learning. Detailed descriptions are available in the Comments from Contributors section of this report.

What delivery approaches and software are likely to work effectively on the planned community infrastructure and self-sufficient mine site computer networks?

It is too early at this point to speculate on what will work to connect mine site infrastructures with women in communities. Mining companies are already self sufficient and not always open to sharing their plans. The public infrastructure is still being developed and does not currently interface with remote mine sites in a manner that might promise collaboration for distance education in the immediate future. However that is changing rapidly, so the same question asked six months from now might have a different response. CISCO is being used by at least two of the remote mine sites in the NWT and shows some promise for distance education.

COMMENTS FROM CONTRIBUTORS

Survey Questionnaire

All contributors were interviewed either in person or by telephone. Conversations were recorded and contributors were offered the opportunity to review their comments and to make any changes they wished to make.

All contributors were asked the following questions, as appropriate to their area of expertise:

1. Can you please tell us about the programs you currently have in place, or you are planning to offer soon, that would help to prepare girls or women to enter trades training or industrial training.
2. What makes your pre-trades training programs for girls or women work? What are the most important features that make them successful?
3. What challenges have you had to face, and how were they resolved?
4. If you could offer any key advice to new pre-trades training programs for girls or women, what would you say?
5. Where do you get your funding for girls' or women's pre-trades programming?
6. How are your programs promoted or advertised?
7. What resources, texts, software, or other systems do you recommend for English literacy and numeracy training for adult women?
8. What resources, texts, software or other systems do you recommend for adult women upgrading towards the Trades Entrance Exam?
9. Is your program or organization involved with distance education? Do you plan to offer distance education in the near future? Please tell us about the training you plan to offer?
10. Do your plans involve any direct links with remote work sites, such as mines? How do you plan to link with remote worksites?

11. What software or other delivery system do you plan to use to deliver your distance education?
12. If we were to develop curricula for your use to prepare community women to enter trades training or your industrial training (eg literacy and numeracy training, upgrading specific to women, hands-on physical skills, work survival skills, communication skills, personal development skills), what format would it need to be in to be useful to you?
13. What would you recommend to community organizations that want to provide pre-trades training for women by distance education?
14. How would you recommend linking women in small communities to training that might be offered through distance education by remote work sites or by community organizations?
15. Do you have any other comments or advice that might help program planners?

Nunavut Contributors

Cindy Cowan
Director, Academic Studies, Trades & Community Programs
Nunatta Campus
Nunavut Arctic College
867-979-7278
867-979-7104 (fax)
Email: ccowan@nac.nu.ca

We have tried to encourage women to participate, but we have not specifically targeted women. We don't have any women in trades program, nothing per se that's running specifically for women. We continue to run a hairdressing program, that is all women, and we have one woman in our fisheries training, she is currently in the Fisheries Observer program. We do have a lot of trades running, we have three Camp Cook programs running, Sanikiluaq, Hall Beach and Arctic Bay, then we have 11 pre-trades programs running. Again, we didn't specifically target women. There are a few women in these programs, but I'd have to confirm those statistics. We also have an Introduction to Carpentry; there is one woman in that class. That is quite an advance, even just a year ago we had no women registered. We still don't have any women at the Apprenticeship level but we are seeing more in the pre-trades programs. Not a lot, but perhaps 10%, maybe one per program.

I'm just responsible for programming at Nunatta Campus, I don't know what's going to happen in regards to trades. We now officially have our Rankin Inlet campus as our trade's center. There is a co-ordinator for trades there, David Ittinuar is the Program Manager. They are just getting up and running. Nunatta Campus will continue with carpentry, but The Kivallik Campus will be offering plumbing, electrical, mechanical and heavy equipment operator, because that is where most of the mining is going to take place. I think there would be some development by this time next year through our Rankin Inlet Campus. Rankin also does Transportation for the airport and Airport Security programs.

I think there is a lot of talk about mining and about employment opportunities. I am not sure why that would appeal necessarily to women, because they still seem to be in a situation where they have children, we are still not really getting a lot of young women out of high school, although the girl who is in the Fisheries Observer Program does not have children. If they are going to work in mining, they are going to have to go in to these camps. However, I think there is also going to be a fair bit of housing construction. The federal government transfer for aboriginal housing has made a big difference. That's why we have all the pre-trades courses running, because the local Housing Associations are going to be hiring local construction workers and I think that appeals to women. They would be in their home community and I think it may be finally registering that construction can be also be not outside rough carpentry, you can also go into

plumbing or electrical which is a little less demanding physically for women so perhaps that appeals a bit more. We have not yet had any women who have completed Apprenticeship Training, so I don't know yet how they feel on the worksite, but they seem to be working well in the preliminary courses. The woman in Intro Carpentry seems to be doing fine. I think it's when they are in their own communities and they can speak in Inuktitut and they know the people, maybe they're even related, then there's more comfort than if they went to a jobsite where they were kind of on their own.

I still have it in my mind that we will offer something specifically for women, I just haven't got my head around it yet. We would do it in Iqaluit, obviously and do a regional delivery, I'm thinking of trying to get for Fall 2007.

We use the pre-trades preparation modules from NAIT and SAIT, we also use the Support Materials developed by Tom O'Connor from the Genesis Group in Yellowknife. We do not give these materials to the students, we find it too high academically for most of our students. We have one or two copies per delivery in the Community Learning Centers, we use them as an instructional resource.

In the Intro Carpentry, it's more basic hands-on. We use Math for Carpenters, and several industry publications from Alberta and Ontario, but mostly it is basic hands-on math. We use the same instructor for both the practical and the math preparation, and he uses his own lesson plans and resources. The other programs, such as Camp Cook, which we do in our communities that are adjacent to parks because there is more demand for taking people out on the land, we use WHMIS materials for safety, First Aid, Food Safe, (an on-line web course) and a Betty Crocker cook book.

In the Pre-trades we tend to still use the NAIT and SAIT modules, and we have some video tapes that we've now transcribed to DVD's for the science experiments, they're old and out of date, but still useful. In some of our communities, they are being used to coach the instructor in conducting the science experiments.

In Nunavut, use of the internet has really taken off, with the efforts of the Nunavut Broadband Development Corporation. We have federal subsidies to support 2000 users, and there are now 3000 users with Qiniq.com accounts, so now we can start talking realistically about distance education. I have just met with a woman from a Winnipeg learning center that does customized training through a learning portal. I'm going to contact her. I think it will work for pre-trades; obviously it won't work for our introductory, hands-on studies, although it certainly will augment them. In Nunavut, I don't think we would ever abandon ourselves totally to student self-directed distance education models, I think we'd still look at facilitated learning, and we would still try to have learning circles. I think we could use distance education for the expertise that we're missing from the communities, and for more interesting curriculum, more animated materials.

The things that can be done now in terms of links, and video clips, is quite fascinating and if you have a group of students in that type of environment, I think that's a real goal.

We have a project with Carleton University doing a digitized community mapping project. People will be able to collect data locally, and then post in on-line, with Carleton providing web-based support, in terms of documenting local land usage and place names and I think they are doing something in the west as well with the Prince of Wales Heritage Center.

So, we are not doing distance education in the pre-trades programs right now, but it is something that is now possible with broadband, and with what NBDC has been able to achieve. I think we are looking at purchasing another chunk of broad band which means we can really start to pilot some projects on-line. I know that in the Teacher's Education program, they are doing more and they have more comprehensive materials that they need to send, because it's a degree program and they're trying to get special knowledge transmitted electronically through the internet.

We are also set up in Iqaluit with what is called a "smart classroom", a classroom dedicated to videoconferencing. We are hoping to get one in Rankin and one in Cambridge, so that at least we can connect with NAC's main campuses. I'm hoping that if Rankin becomes a center of excellence for trades, and they have one— for about \$15,000 they can set up a smart classroom themselves – we can start exchanging expertise. We got the smart classroom through our Fisheries training, which is an Aboriginal Skills Employment Program project with the Baffin Fisheries Coalition, they have the boats to hire Inuit to work offshore. Students come here to do the first two or three weeks of preliminary training face-to-face, they do their First Aid, firefighting, and various other components of primarily Transport Canada materials for marine safety and education. The Marine Institute in St. John can video conference with students in or our smart classroom on theory based courses related to the more advanced designated occupations working in the offshore. We're just starting to get a feel of that, as well. I think we're just testing the waters a bit.

We have done some other training in the smart classroom at the senior management level with the GN, I know they do some video conferencing; Carleton University uses video conferencing for learning circles in Arviat and in Iqaluit.

David Ittinuar
Manager Trades Training
Nunavut Arctic College
Keewatin Campus
Rankin Inlet, NU
867-645-5503
dittinuar@nac.nu.ca

Currently, the Nunavut Trades Training Center, the new trades training center that is going to be delivered into Rankin Inlet, is in the very initial stages of being designed,

next week we are meeting with the architects for the first time. Construction is going to be an 18 month process. So we are looking at possibly the end of the 2009 calendar year to open the doors of the new trades training center in Rankin Inlet. Currently, there are some carpentry programs offered in Iqaluit, encompassing Levels 1 through 4 for apprenticeship, then they have pre-trades components. That's going to be staying there, and it's ongoing right now. We also have a mine worker training program scheduled in Cambridge Bay for the Kitikmeot Region, which will be coming on line in phases with the first trades programs in the calendar year 2008, for the pre-employment modules, Mine Worker and Mine Mill Worker. Then in 2010, we will implement the apprenticeship component of those same trades.

So we are very much at the early stages of developing the program schedules, and the different curriculum work that is going to be ongoing, we are just planning for that type of activity right now. However we've discussed internally here how we would address women in trades and provide support for that activity. I have tasked some staff here to research material and get a background on what organizations we could become affiliated with to provide support to Nunavummiut and to women in trades. We have thrown around a few ideas on how we might be able to do that. One of the suggestions is to have an all women trades class, rather than having an immersion, I am still researching whether that's the most desirable or not.

That is where we are at with our planning. I have a group going to Yellowknife in a few weeks to look at the Kimberlite Training Center, we are going on to Fort Smith to look at the trades training centers there. We will use that information to develop our strategy for the design here. In 2008, we identified the need for a series of positions that would be tasked with developing curriculum and taking certain training strategies forward, women in trades is one that will be attended to, starting 2008. We should have people on the ground doing that for about a year and a half before the training center opens. We've also got an old trades center here that will be piloting certain courses, so there is opportunity there that we can take to try a women-in-trades class. I think that would make a very good pilot.

We have lots on the go. For one person at the desk right now, the phone goes continuously. We have three campuses and several initiatives on the go. The other side of this too is that the mining industry is just absolutely taking off like a rocket over here. We are constantly meeting with mining companies and exploration companies and going out to sites and looking at who the employees are and what kind of work they are involved with. There are definitely links and opportunities for women-specific training, and the need to support that activity as well.

There is a lot going on. I am confident that with the level of support the government is putting behind all of these initiatives, the new trades training center is a big priority of this current government. There are still a couple of years left in this term, and there is a lot of drive right now to put things on the ground and make sure that they are in place within the next couple of years. These kinds of initiatives, whether it's a Housing Maintainer program or a welding program, that you target and outline as a priority within

Nunavut Arctic College, it certainly has no lack of support in the government. It's been a real pleasure to work with, actually. I see the women in trades file taking on a life of its own and spearheading some very interesting material.

We are starting to look now at existing programs elsewhere, and see what's out there that's working, and start to create some corporate relationships to deliver programming. Right now, the same reception we are getting from our government we are also getting from other colleges. There are a lot of partnerships for curriculum development and other things that are shared between all of us. I am pretty confident that as soon as we map out what our program is, what we are going to need to implement for women in trades is not going to be a problem for us to ensure there is something on the ground.

It is exciting. The scale of the thing is mind boggling at times. When they announced the trades training center initiative for \$10 million, we looked at the budget and the scope of implementing programs like construction trades and heavy duty mechanics and heavy equipment operators and we realized early on that this will have to be phased in and that \$10 million is just start up money. The cost of implementing for heavy duty operators and similar programs is just phenomenal. So there is a phase two component to implementation and the roll out of trades training.

In one of those analyses, we had identified residential accommodation as a very important factor in ensuring the success of students. You see it particularly with young mothers with children that need day care support. So we took a good portion of the initial money and prioritization of other funding within the government to implement first a 12 apartment complex that includes a day care facility and a playground. It's in three separate buildings that form a courtyard and there are designated play areas and parking. That's actually going ahead before the trades training facility, that's actually being constructed now, for \$7.6 million that we put into the residential unit. Because of the demographics, we have identified that as a high priority to make sure that people are comfortable while they are here and they receive the level of support they need for their children and day cares and things like that come into that.

We said that without that foundation, you could spend millions of dollars after, and just never get the product output. It was one of the first things that we did. With as much pressure as there is to deliver the trades training, we just had to take another year to do this critical step to make sure the accommodations were here first. We will be taking that same approach when we deal with the women in trades issues. We have some really strong resources here in the College assisting us with that. They are talking about developing committees for peer support, so that's encouraging as well.

I see a role for distance education in the programs we will be developing. A lot of our meetings and interactions with other colleges, in developing our partnerships to deliver trades training, the phasing in of sequencing of our programs requires us in the first few years to develop hand off agreements with other colleges to continue higher level training for apprenticeships and other areas like that. In those meetings we have been keenly looking for who has the strongest delivery of distance education. In Nunavut we

have broadband services to all communities in Nunavut. It is not 100% reliable and not as fast as we would like to see but it is a far cry from what it was a few years ago. So we are looking at developing our curriculum so that it is in packages of a combination of distance education over the internet and having a disk in the adult ed center.

We have looked at the Porcupine Campus in Timmins, they have a room for distance education where they have videoconferencing and so forth. We discussed at length how well it works and what are the areas that needed attention. One of the things they advised us is that when you do distance education you have to have a facilitator in the other room. It really helps to keep things rolling along if you have a facilitator receiving the information and is prepared to deliver it verbally as well, and to assist with any questions on site. We have researched what's working, and keeping an open mind being from Nunavut, about what would support that activity.

It's a big priority within our departmental mandate also to strengthen and develop programming that responds to distance education. I just contracted out the development of an Introductory Mineworker training package. One of the criteria was that as much as you give us in documents and binders, it also has to be on a CD and it has to be with the mindset that we can float this across 25 Community Learning Centers across Nunavut. And the Adult Educator, who may not have a mining background, with enough resources and materials such as the handbook that we're developing, the instructor, will be able to get by. And also if we supplement it with some distance learning of sorts where we have facilitators across the territory. So we are starting to put our toe in the water with that kind of delivery. With the cost of travel and the benefits of people learning in their own communities, it's just enormous, it just could not be overstated how important that is.

This is absolutely an important item that we are going to be assessing and developing as we go.

Janet Sainsbury
Senior Instructor, Community Aerodrome Radio Station Training,
Nunavut Arctic College
Keewatin Campus
Rankin Inlet
Phone: 867-645-5511
jsainsbury@nac.nu.ca

My involvement is on an ad hoc basis because of my background in aviation, which is a non-traditional occupation for women. In the trades education and training area, I have seen in the past how it is really beneficial to have specific programming for women and specific supports for women so I broached the idea. I have been with Nunavut Arctic College since June, before that I was with Aurora College. We talked there about

women in trades and the supports they need, so I brought my interest with me when I came. I see my role as an unofficial role if I can do anything to help or mentor any of our students in any programs who are in a workplace or a training environment where it is primarily a male dominated industry.

I would be surprised if there is much formal in place before we start up with the trades center which I believe is September '09. Once the trades classes get going, then we're more likely to have something structured in place. With our Community Aerodrome Radio Training which is what we do on the aviation side now, we often don't have any women in the class and at most one or two, so I try to work with them on an individual basis and do some extra one-on-one work with them. Some of them are not that comfortable palling around with the guys and joining their study group so I try and give them a little bit of extra attention if they seem to need it.

In Nunavut, there is a strong cultural factor at work. It's difficult for women to assume the authority role in a lot of instances. They have traditionally done lots of skilled technical types of activities, like sewing, but working with tools, not so much. So it's a leap for some of them to make that change and when they do try to make that change, from what I've seen, they are not always readily accepted in the environment. I know a couple of female pilots who have had quite a rough ride from some of their male colleagues, so they have to be pretty thick skinned at times. I have had to step in and tell some people that they were out of line when they were acting up.

I'm not sure what the specific plans are to include women in trades training. I told my employer that Aurora College plans to have separate trades classes for women, but we may not have the enrolment, especially in the beginning to go that route. You have to have a certain number to carry a course, so I am not certain we would have the numbers to generate a specific course for women, which would I think be optimal. Even down south, girls in girls' schools do much better at the maths and sciences than do girls in mixed classes. So it would be nice to be able to do, but I am not sure we will have the numbers necessary to go there. So over time I can see it happening, even if every second, or third or fourth intake, they did a dedicated course for women. My picture of it is that we would always respond to what the market needs, but I would like to see us recruiting women actively.

I would like to see distance delivery involved in trades training, but right now we don't have the infrastructure to support the high end programs that we need. We don't have the interactivity that would be necessary, so until we get to that point I think we would be biting off more than we could chew. NAIT does distance delivery of trades all over the place, but they are on supernet, they have the technology and the technology support in place already. Once we have the technological infrastructure in place and have the interactivity and can support the high end interactive programs and the complicated technology we would need to deliver the trades training, then I think we would be more willing to go in that direction. Straight text book-based distance education is not a good option for our students, a lot of them have not had good experiences in school. So when they come back to it, they tend to need a lot of motivation and need a lot of hand

holding, coaching, cheerleading, a certain amount of butt-kicking, all those good things that help students stay focused. To send them off with only a dry text book to read wouldn't be doing them any favours, I think.

I am most interested in what other organizations and educational institutions are doing, so once you have completed this, if you can share the results of your studies, that would be most interesting.

Northwest Territories

Allyson Stroeder
Past Executive Director
Kimberlite Career and Technical Center
Yellowknife Catholic Schools
Yellowknife, NT

We use a number of different materials, depending on the program. Probably the most materials-heavy courses are those in the multi-station technology lab. All of those materials were developed by AMATROL in the States. They are all computer based and print copy, students can choose which one they would like to use.

In the other programs we deliver, the practical component is at least 75% - 80% of the course and the materials we use are teacher developed. We have put together teaching modules for each course. There are some internet activities in the modules, there are some text books for some of the courses. Right now there are no text books that completely look after one course. We follow Alberta's courses. We use the NWT support materials (developed by Genesis Ltd.) for Aurora College students and high school students in the trades prep courses who need to brush up on their math, science, and reading comprehension or to be successful on the Trades Entrance Exam. It was never meant to teach you how to multiply fractions, do trigonometry, and so on, it is a review of those skills. If you need to teach those skills from scratch, the instructor needs to scramble to find materials somewhere else. So we have a whole bunch of different texts that the instructors reference.

There are also theory materials, called *Practical Problems in Mathematics for Electricians*, and also For Heating and Cooling, For Manufacturing, For Welding, For Automotive Technician, and For Carpenters. These are very good. Someone will say "I want to be a carpenter, what will I ever use trig for?" So you open the book, go to the trig section and do the questions that pertain. This is a very old series, but it's very good. Published by Delmar Publishers, different authors.

This is an old series, the last time I contacted them, they were working on more. That's an excellent series. Unfortunately we don't have anything like that in science.

For the Aurora College students, we also use the *Ready to Work North* Program, which is an excellent program. It teaches a lot of the soft skill stuff, conflict resolution, and communication and so on. We use the WCB *Safety and the Young Worker* course. All of our Grade 8 students in the Yellowknife Catholic Schools have to take and pass that course. It has a WHMIS component, a first aid component, all those materials come from the WCB. They are by far the best materials in Canada. That has shown up at the Skills Canada competitions, where consistently the NWT competitor wins gold. Skills

Canada has a rule that if you want to compete in the Work Safety Competition, you have to have taken and passed that program, we are the only jurisdiction that has that rule, so if you passed it, and it is a nationally recognized program, you're going to do well. I think out of the last five years, we won gold four times. It is an excellent program.

If a fledgling program somewhere else wanted to purchase our instructor developed materials, that would be up to the school board. As it is right now, you can't purchase any modules from Alberta Ed or from anywhere else. That has to do with legal liability. The objectives from Alberta Ed are not really specific. They're very broad. For example, "Use common hand and power tools", you may teach 20 different tools, I might teach three, it might be totally different. So you might think this tool is most important and I might choose some other as being most important. It is the same in all different areas.

There was a lawsuit in Calgary several years ago, regarding a student who had come in with what Calgary Public thought was the pre-requisite. But the student came from a smaller school that did not have all the same tools, so they substituted 20 basic hand and power tools that they had, the student injured himself and there was a law suit from the parents.

So now you can't buy these anywhere, everyone in Alberta teaches them of course, but you can't buy them. How can I make sure you are going to teach these same 20 basic hand and power tools the same way I would and with the same level of security. Having said that, we have shared these with some of our partners. The Tli Cho has these, in Bechoko. They have all of these modules.

We do follow the safety procedures from this book we got online from Texas It's called Technology Education, Safety Resources, Notes, Tests and Illustrations. We just downloaded this from the Internet. It goes through every power tool imaginable, does a practical safety test, what does this power tool do, why is it useful, they have to identify the different components, you go through this checklist with the instructor, and then there's a written test. There is a tracking sheet, a safety performance record, with it. Every four-six weeks we test the student on the tool, they have to get 100% on both the written and the performance tests in order to be allowed to use that piece of equipment independently. If they don't get 100%, they can't use it, they have to continue to work with the instructor until they get 100% on the test. That's what we have set up, that is not in the Alberta Guidelines.

All of this material is based on the students using this safety standard, which is not written into the Alberta safety standards. So when the Alberta program talks about Grade 7 and 8 students using a compound mitre saw, it does not say that we have already gone through this with the students here.

If we had a partner that came forward and was interested in using some of the materials, they would have to ask permission from the board office, I am sure there would be a legal document that would have to be exchanged. But we have already shared some of them with our partners.

Most of the computer programs we use are the ones that are in the multi station lab. That includes Autocad, desktop publishing, graphic design. All those programs, which include assessment packages, are designed by AMATROL Industry in the States. We have some site licenses and some agreements, such as with Career Cruising. You click on an occupation and there's some video clips. There is almost always one female and one male. Electrician, one male, one female. Hair styling, one of each. You can get the video clip, or if your computer doesn't handle video then it's in text. You are shown a day in the life of the tradesperson, they talk about their likes, their dislikes, their approximate pay scale, and so on. That's an excellent program, you might want to check into that one.

Every one of our courses has a career exploratory program to it. It doesn't matter if you take Welding 10 or Carpentry 10 you will still do the same activity but you can explore many different occupations.

That's if for computer programs, other than regular stuff like Microsoft Publisher and Word.

I think it would be useful to develop a gender awareness type of program. When I was at the Canadian Apprenticeship Forum in Halifax, I met someone from Newfoundland (I think her name is Jan Burry) who does gender awareness sessions for male instructors teaching women, and for female instructors teaching men. So, balance, both ways. She talks about the way different people interpret different things. I think it's important to have some dialogue, such as "some men might interpret that this way, but some women might interpret that pretty differently". All we need is the dialogue and the questions and answers and worksheets that go along with that. We did check into having them come up for a couple of days to do a course but the KCTC budget cannot handle that. \$800 per person per day, plus flights, plus one day set up and take down on either side of it. Way over what we can afford. But having all male instructors, except for one here, I think it would be a great thing to have. Even for a female instructor, for teachers at the high school, for any kind of teacher.

At Welledeh School they have gendered classes, they are finding some really interesting results. Grade 7 and 8's students do their math and language arts separately. I sat in a class of math, that's my background, I saw the exact same lesson taught one right after the other, first to the girls then to the boys. The lesson was taught very differently and it was extremely successful in both groups. We do learn differently.

The approach for teaching the boys was much more active, the girls was more group work and more pencil and paper activity. The boys were doing a ball bouncing thing to see how high a ball would bounce, then a bigger ball, then another, and another. The girls just bounced a little ball and then talked about it groups. The boys cleared the desks out of the middle, and you know what happened? They didn't just drop the ball down from a reasonable height, they slammed it down, it hit the ceiling, then another boy stood on a chair to do it higher— it was a lot more physically engaging. Then the

boys took the information and made big paper charts all over the walls. The girls did it on little papers and coloured theirs in. The boys put a big X through instead of colouring.

Some of the boys did it differently, but the difference in the amount of activity in the classroom was really noticeable. And they say that's what they find every day. The girls like the group work, they like to bounce ideas off each other, the boys say "Give me a buddy and we'll go do it." I think that awareness is great, those teachers in Welledeh School are learning those differences about kids all the time.

Then within that group of boys there are other differences. There are cultural differences too. Some boys, you give them something and they are just going to get in their right away, some cultures are a lot more relaxed, "Ok you start and I'll join in after".

I think that in teaching adults and older high school students all of those differences come into play. I think a course that talks about those soft skills would be great. The materials we got from Dr. Braundy had some stuff like that in it. Putting that stuff into work sheets and activities with questions and answers would be helpful.

Kate Bruce, a geology teacher, did an interesting activity in one of her classes last week, in a Mining and Geology unit. The lesson was about observation and description, the difference between seeing and observing, hearing and listening and the description of those activities. Where she was going with that was – when you pick up a rock, you don't just say, "Oh this is a rock", you say "It is this size, approximately this weight, it's this texture". So the more clearly you can describe it, the more easily someone else can identify it. It was a day that I was in the classroom with her. She had somebody come into the classroom and say "I think I have this classroom booked and of course Kate said "No it's my regular class time" and that person got fairly agitated about it and said "No, I have a whole group of people coming" and it developed into a confrontation. Of course this was all set up ahead of time. It was really interesting to watch the kids. Some of them were leaning forward right into it, some of the kids physically pushed their chairs back and turned and started a side conversation with their friend. I did not notice any division along gender lines but it was very interesting. Then we walked out and Kate walked back in said to the students "I want you to write down everything you saw. Describe the scene, because it all happened so fast for me I don't know what the heck was going on".

So the kids got together and wrote "One very rude lady waltzed in here...". It was a great activity. Afterwards, the "rude lady" came back up and we told them what was going on, that it was all about observing. One of the students said "Well I couldn't believe Ms. Stroeder just sat here and let you take all that crap. What was she doing back there, she was just sitting there!" Some of them said "I think she had jeans on", some had no idea. But those types of activities are interesting for the students to do. But there was no gender division there. It was a personality thing. The body language was very interesting. That's how different people deal with conflict.

I think the idea of using a webcam and software such as SKYPE to demonstrate hands on skills is a viable type of lesson plan but that practical piece where the student actually uses the table saw has to be done with the journey person right beside the student. But in each one of these instructor models that we use and in the Status of Women's program there is a paper and pencil part of it that could be done anywhere. So some of the theory and safety skills, the background stuff, the Ready to Work North stuff, could be done at home, some not. You have to learn to read body language, you have to learn to interact with the person, how to talk to a person, "Maybe that's not the best way for me to talk to him", if I'm at a computer that's going to be tough. The practical component needs to be supervised, somebody qualified has to be there.

The problem with finding trades people in the north is finding people who can both teach the theory part and can also teach the hands-on part. You could have a teacher, someone who has the knowledge about how to teach do the first part and then have somebody from the Power Corp or the Housing Corp or the Housing Board office doing the practical part, as long as he knows that all he is going to do is to follow a checklist and show the student how properly to run the table saw. Part of the concern about that, is it's like teaching your own kids how to drive a car, if I were to teach my own kids I would just be teaching them my own bad habits. That's why we use proper manuals. Both of our carpentry instructors teach using our guidebooks so nobody's bad habits are being passed along.

Group interaction is a huge piece of the learning. The Status of Women has their afternoon courses going on here, yesterday it was really interesting because there were women helping women use the table saw. Someone had already gone through and been checked off on it, the other person had also been checked off on it but is a little more reluctant. The instructor could only be in one place at one time. So somebody else stepped in and helped out there.

We have a student who started with the Status of Women 25 hour evening program in 2005, and liked it so much, she quit her job, started with the Aurora College day program in 2006, and is now working in the field as an apprentice. She comes back in the evening now and volunteers with the women's course. That mentoring piece is another very important component. For the most part she's younger than everybody else, but it's great for the women students, and it's great for her.

I think you can break projects down into two different pieces. If you teach people how to use basic tools and then said OK go to your garage now and build something, there's a lot of things the students won't learn. In the Status of Women course, people are working on all sorts of different projects. For whatever reason this time, lots of people are choosing the blanket box. There is a lot of artistic leeway in things like how you will make it, what kind of scallops you will add. One of the women had her project drawn up and cut out, then she looked over at somebody else's and said "Ooh, I like her's". So she threw it away and started over again. She finally decided she wanted a combination of her idea and the other student's idea. So in the interaction with other students, there is a lot of peer tutoring that can happen, whether you recognize it or not. Group work is

really important. That's how we all learn from each other, right? We are group people, we are not just individuals.

I think there is a huge pool of people in the communities who want retraining. It's not just women, but I think there are a lot of women out there. There are lots of the mall creatures, lots of young women hanging out at the mall who have not been successful in school, or school has not been successful for them. I am sure we will see them in College programs in five or six years when they have some kids. It would be great if we had some sort of a drop in or out reach program where we could get those kids back in school, on their terms, that would be ideal. Before they may have made some decisions that may involve the social justice system. There is still a big gap there. There are a lot of kids that like the training we do here that is keeping kids in school, but we've missed some kids and some kids made some decisions before we were ready to expand out programming. Those are the kids, when you go downtown at lunchtime and at 10:00 and at 2:00 who are just walking in and out of the doors of the mall. They want something to do, do they want to come and sit in a classroom for 6 ½ hours a day? No. Would they come for a couple of hours twice a week to work on a project of their choice? At their speed? Probably yes.

We have some new programs operating here. We currently have two Status of Women programs, one is an afternoon program, this is our first time offering an afternoon program for the Status of Women.

We're planning a new kindergarten/Grade 1 activity day. We want to move the career development thing as far through the curriculum as we can, so we go right from kindergarten and Grade 1 when everybody's first choice for an occupation is either superhero, ballerina or rock star, good choices but not many people actually get there, but we can introduce some kids to a superhero rock star ballerina welder. So we've got 20 stations ready for activity day. Each station has a different focus. There's a Glazier 1, (and that's not donuts) and a Plumbing 1 and cooking and hairstyling and we're going to talk about how everything is good for girls and everything's good for boys. That's pretty exciting.

Our new robotics program that DeBeers ran in Lutsel Ke, is a really great program. For two summers we have run robotics camps for the kids Grades 5 – 7. We have two levels, beginner and intermediate level. They use a kit like model kits to make a robot over a whole day. At the end of the day, the robots are sumo robotic wrestlers and wrestle each other. For the kids, that is just the cool of the cool. The whole time they are building these robots, they are talking about insulators, alternating direct current, resistors, gears and pulleys, wheels and the size of wheels. DeBeers saw this program that we ran, and because they are one of our partners, they asked us to run it in Lutsel Ke in January, it was an outstanding success. They are already asking for another one. A program like that can be run anywhere.

Could it be done by distance ed? Probably not, because those little fingers sometimes break those little pieces and you need someone with the expertise to help you put that

back together. But you could teach the instructors how to teach it by distance education. That robotics program is only going to grow to all different communities. At the end we gave out an evaluation form and asked, "What did you learn today?" "Nothing." That's the best kind of learning, if they didn't even realize they were learning anything. But when you walk through the classroom, they're talking about how the current is moving, and "Oh my robot won't go forward because I must have switched the wires around and the current didn't move in the right direction", that's good learning.

Annemieke Mulders
Project Co-ordinator
Women in Mining, Oil and Gas
Status of Women Council of the NWT
Yellowknife, NWT
Phone: 920-8993
Fax:873-0285
am@statusofwomen.nt.ca

and

Lorraine Phaneuf
Projects and Research Manager
Status of Women Council of the NWT
Phone: 920-8938
Fax: 873-0285
lorraine@statusofwomen.nt.ca

Lorraine: There was a proposal development team that was supported by the Government of the Northwest Territories Department of Education, Culture and Employment and by DIAND, who funded a co-ordinator to work on the proposal development. They also provided a proposal writer through DIAND to help us come up with a proposal that would be worthy of HRSDC funding. Then after two long years, it was finally funded on March 9, 2007 by HRSDC. They awarded us \$1.3 million for the duration of the project.

Along with the project funders, they supported us throughout the project. The mines have been very helpful, they have supported exposure courses throughout the proposal development phase, which was like an awareness kind of campaign to come into the big project that we are doing.

An advisory committee sat for two years to push this project through, so it was a lot of work for a lot of people. We could not have really done it without our partners, especially Indian and Northern Affairs. They are somewhat like a project manager. We're kind of in a team position. They have really supported this, and they still support it.

The inception of the project was March 9. Because of the late funding date, we only had three short weeks in the first funding year, so really not a lot happened there. Then we went into kind of a recruitment phase and a project planning phase. Throughout the spring and summer, we did information sessions, we advertised in the paper and on the radio, we went to communities. The one community we went to before the first course was Fort MacPherson because, from the newspaper ad, we had such a high interest from the Beaufort Delta, we thought that if we only had time to choose one community, it would be in that area. We had very good attendance there, the community very much supported us, we were on the radio, the Adult Educator offered his facility, the employment officer offered her services to gather the women, spread the word, it was just very successful.

Unfortunately in July our project Co-ordinator decided to resign so there was a lapse at that time. The project was somewhat struggling because the recruitment was not where it was supposed to be. The project team here at the Status of Women pulled together to get the information out. We brought in consultants from Edmonton we thought could maybe help us, but their approach, although very good, is not a northern approach. We felt, and the project partners felt, that we needed to re-look at the assessment form. The way they assess, which is very good when you have a pool of thousands, but with our small pool, the assessment would not work. We learned that very quickly. So then we restructured and came up with an assessment tool we thought would be OK and we did get enough people for the first course that happened in October. I think we had two information sessions in Yellowknife, and one in Fort MacPherson for the first course. We had about 37 people attend the information sessions. That was pretty good, it was the first one, and it was a time of year that people are thinking about going out onto the land. At the end of the day we ended up with nine of which we just graduated four that completed the entire course, and took WHMIS,

Annemieke: and fork lift training, Safety and the Young Worker, Standard First Aid and CPR, and a week of personal awareness and team building. We call those the Enhancement Courses. That was all done over two weeks. We just celebrated their graduation last Monday, the students were very proud and we were very proud of them.

I came in a week before the first class was scheduled to start, so it was a bit of a steep learning curve for me so I learned along with the first group what this was all about. When I first began we were implementing the first main course and also it was time to start recruiting for the second semester. One of the first things I looked at was our assessment process. Although it was good, we started to see early that there were some issues with some of the students that it would have been good to have been able to identify before they had been accepted into the program. I think that a lot of this contributed to our attrition rate, we did lose five of the nine. We thought that we would perhaps be better at identifying substance abuse issues and other serious personal issues that we felt we should have referred them first and then invited them to re-apply. We are pretty open, we certainly want a wide range of women involved, but there are a few issues that maybe the barriers are so great that maybe we need to address some of

those first and then come into the program, rather than trying to deal with them while they are going to school full time, it can be a little bit too much to deal with all of those things together.

We felt it was important to look at the assessment process again. So we spent considerable time with the evaluator, and we hired a psychologist consultant to put together an assessment. We knew it wasn't realistic to put them through a battery of four hours of psychological testing, that wasn't going to work. About half an hour was our target. A very brief assessment of where they are at in their home life, and psychologically. We added an aptitude portion, we thought that a strong indicator of potential success might be some sort of mechanical aptitude. We did not want to exclude anyone who did not have a very high level of math or science. That was a fun part to put together. I think we were quite successful in doing a very simple aptitude test. Later on we will be able to compare the results to the actual success rate later.

That took quite a bit of time and shortened our recruitment period, because we wanted to have these ready first so that we could assess the women using these new tools. So the later part of November and early December we spent recruiting. We did recruiting sessions in Yellowknife, Bechoko and Hay River which were reasonably well attended. I think the time of year, doing it right before Christmas, was a little bit tough. I think that if we had done it at another time we might have had greater numbers. But it was the time we had, and everything was moving along very short time lines. We did manage to get enough students to fill both classes.

In September we had intended to start another Building Trades Helper Program with a target of eight students each, but they would allow us up to ten for attrition. We were also to begin a Trades Entrance Exam Preparation course, which is a second level course for women who have completed the Building Trades Helper Program to help them prepare to write the Trades Entrance Exam. And also that was opened up because not all of the women would want to continue on. It was also opened up to other women who maybe already had an idea which trade they were interested in but just needed a lot of upgrading to get ready for the exam. Unfortunately, the Trades Entrance Exam preparation Course was cancelled because the College couldn't find an instructor.

Lorraine: We may end up having to de-commit as a result.

Annemieke: So we prioritized those women on our list who had been eligible for the Trades Entrance Preparation course and invited them instead to join in on the Building Trades Helper course if they were interested. Some of them were interested, so we haven't lost them all, some of them will be part of that program and of course they will be prioritized for the next semester when we do offer that course in the fall.

I think there were some confusions in the beginning with the College about what our needs were and what our program is. I think those have now been sorted out. It seems that they maybe didn't understand how critical it was that we have a program that we

must follow. We can't just change courses or swap things around. It's very specific, particularly with our main funders that we have concrete deliverables that we need to deliver, and it is very difficult to change those part way through. I think that has been sorted out now and I think that the College is working very hard to accommodate our needs and figure out what we can still offer what we need to offer and maybe make up for this lack of a course sometime in the fall. I think they are working very hard to make things better. We had a contract with the College to deliver the courses but...

The second group started the Building Trades Helper program on February 4 (2008), they are in their third week now in the Building Trades Helper program. But before that, in the middle of January, these students also joined the first group in the Enhancement Courses because it's expensive to rent the forklift, so we put both groups together and they did most of the enhancement courses together as one big group. The Safety and the Young Worker course was the one that only the first group did, the second will do it at a later date.

The Personal Awareness and Teambuilding course is an exploration of the students' own personal strengths and challenges. They work through how they deal with conflict, how they deal with other people, and how they deal with themselves. Then that's taken into how they can work together better as a full team. We have learned that it is best to have that program offered at the beginning of the course not at the end. I think that has made a really big difference. We have been told by KCTC and we have seen ourselves that this group has really bonded in the classroom, already having skills to work together as a team like they would on a jobsite. They understand a little more about personal barriers and when to bond and what are the barriers to respect a little bit more and it seems to have made a really big difference.

It might be useful for you to add that curriculum into the curriculum that you are developing. We were a little suspect, but we were wrong. I thought it was maybe a little bit fluffy but it is very valuable. It is based on the Virginia Satir model, developed by Maria Gomera who works at the Haven. One of her interns came up and did it for us.

Lorraine: We were a little suspect, because we wondered, would there enough training for working in a man's world and workplace culture and how would that all fit in, but even the instructors at KCTC have indicated they can see the cohesiveness of this new group and the difference in the way they have been presenting themselves.

That's an overview of where we are at right now.

Annemieke: Our successes are due to all of our partners, having so much support from so many different areas, private sector, government, non-government organizations, everybody working together with the same goal is huge. The fact that we are providing the personal supports to the women in transportation, childcare, personal counselling, access to funding, really whatever it is, by developing close relationships with the students and checking in with them very regularly, no less than once per week, we are able to identify what are the barriers that are starting. What are the things that might

develop into something that might result in them having to leave the program, leave the training. We are able to help them work through that at an early stage so it doesn't hit a critical point where they have to leave. I think that's the biggest thing that makes our program different.

Lorraine: And I think our sub-contractor, KCTC, because the instructors understand the concept of the project I think that's made a big difference. Some other people that we have dealt with may or not understand the concept as well and I see that as a challenge. If you don't understand the concept, it's hard to support it in the right way.

Larry Connolly at the Kimberlite Career and Technical Center (KCTC) really understands the project, he stands behind what we are doing, and because he understands the project, it makes working together so much easier. He understands the concept, and that's clear, very clear.

Annemieke: So many times he has gone above and beyond what a contract has to do. There's been times when at the last minute, Moms have been stuck with the kids out of school for the afternoon, and there was no child care available, so rather than miss the class, "Sure you can bring them into the classroom, they can colour in the back". He's been so accommodating, it's been fantastic. It's been really wonderful.

Lorraine: We did some exposure courses at KCTC previously, they always went well. Because of the depth of this course we are doing now, we have contact with KCTC almost daily.

Annemieke: I get attendance records every day, and any little issues that come up, they let us know right away, before it turns into a real problem so we can address things when they are still easy.

Lorraine: Having the program delivered in Yellowknife makes sense. The project support team is here. Annemieke has gone over and above the call of duty with the students, trying to find them housing. If we were here and they were in Fort Smith, we could not have provided that support. She went through the political, everything, to find a woman a place to live, it was a huge challenge.

Annemieke: And that can't be done from afar. And I wouldn't be comfortable getting a contractor to just provide support services, it's so integral to the project, it is something that we at the Status of Women team have to be really involved in to make sure it's done fully and right, it's the core of everything.

Lorraine: We are trying to get an amendment so that the support systems would provide an emergency fund for housing. We advocate for the women through income support and other means of funding, which is what Annemieke did – job well done – the lady now has a nice place to live.

Annemieke: Sometimes it is just simply helping them access what they are entitled to. But without a strong voice and a strong advocate, sometimes it can become very political and it's virtually impossible for some women to access what they are entitled to. That was a bit of an eye opener and a surprise to me, but we realize that is an important support. Just helping them through a process that most women, faced with the situation, would give up on and not get the funds they are entitled to.

We also have an amendment to actually provide for emergency childcare. We've been able to make some accommodations for the women on a general basis. For example, a few of the women in the last course had school aged children they had to drop off at school before they could come to class, so we changed the starting time of the class, which accommodated them, they could drop off the kids first then come to class and not be late. Again, KCTC, when there was an emergency, and something came up, rather than have the women go home to be with their kids, if there wasn't childcare available we could bring them into the classroom and do some little activities in the back. They have been fantastic in so many different ways.

But it would be really helpful to have a budget line of funds so that if we needed to have an afternoon when the schools were out, or the power goes out at the schools, rather than have the women leave their classrooms, we could provide some kind of a childcare and pay for it.

Lorraine: Or even better, on-site day care. In high schools down south, you see on-site daycare, it's part of the COM hours, and it's all inclusive in the program.

Challenges? We have had some attrition but I think that with having the Personal Awareness at the beginning and a better way of assessing, we are hoping that will help with the attrition, because some of the red flags weren't identified in the initial assessment but we brought in a very well informed psychologist. She consulted with a lot of her colleagues, and they came up with a very easy to use assessment that we could use that was self directed, so the applicant actually does the assessment alone, so I think that will really make a difference. If it doesn't, we will be looking at new ways to improve the assessment process, so we know what referrals and what supports the women need throughout the project, from the assessment. That's the intent of the assessment.

Annemieke: You need to look at things that are beyond just the academics and learning the trade itself. There are a lot of barriers that women and girls face that also need to be looked at as a whole package if the program is going to succeed.

Lorraine: And you need partners that understand your concept and believe in it. They can't look at it as if this pilot project is getting special preference, they have to look at it as if it is a package, it is a research, pilot project. These are the supports in place to see if that makes a difference. I think that's a concept that has to be understood.

Industry sits on our Advisory Committee, so they've been very supportive in the development of the proposal.

Lorraine: And they supported the exposure courses.

Annemieke: We haven't hit the portion yet where we will be looking for them to actually bring the women on as apprentices and offer full time employment. That is something we are just starting to work on right now, so I am hopeful that will go very well, they certainly have made the commitment that they will be there to hire the women and offer the employment opportunities but it hasn't happened yet because we're not at that stage yet. They seem very interested, they are saying all the right things and making all the right commitments. Later on when we get to that point, I will be able to tell you how that went.

Lorraine: The biggest chunk of our funding comes from the Pan Canadian Innovations Fund, which is HRSDC. We get a large pocket of money also from Indian and Northern Affairs, we get a pocket of money from Education, Culture and Employment. We also get small pots of money from some of the other funders: BHP, Diavik, DeBeers, PSAC has provided some small pots of funding, so we've been very much supported by the community in funding. They made commitments prior to the project starting, and they have been meeting those commitments. Funding has not been an issue at all.

Aurora College is delivering the academic upgrading portion of the program. At this time, there is no attempt to deliver any portions of the program by distance education. We could see that happening, but only in the actual trades entry preparation. We looked at that, but it becomes quite difficult with accreditation, and where it would be held. I think the way our funders look at it, is there is a pool of women that are on a site somewhere taking training. But not to say that we would not look at that in the future.

Annemieke: We've noticed that the women really like the hands-on. That portion of the Building Trades Helper Program is by far their favourite. We are thinking that once we get to the Trades Entrance Preparation portion, which is all academics, it might be tougher to keep students interested and doing that all day without having it being balanced with hands-on shop time too. We haven't done it yet, so we're just making assumptions on the basis of feedback we're getting from the first group but we suspect they are not going to have as much fun being in the classroom all the time. They love getting their hands in there.

Barb Curtis, Co-ordinator,
Building Trades Program
Yellowknife Campus
Aurora College
Phone:920-8950
Fax:873-0333
bcurtis@auroracollege.nt.ca

I can't speak to all of the programs the College offers, because I am not involved in all the programs. I am involved with the Building Trades Helper program, the Mine Access Training program and the Welding program. Three of those programs are run concurrently with the Building Trades Helper program, and with the Ready to Work North program, I believe we are able to prepare women for the workforce, and for cultural differences and barriers they may encounter just by going into male dominated industries.

The Building Trades Helper program is a federally funded program, through the Youth Skills Link program, which is geared towards our youth at risk. Without intervention it is believed some of these youth could become homeless or on the street. These programs are geared towards our 16 – 30 year old people, that's where the funding is coming from. That program is both in-class and work placement. We have 12 weeks of classroom instruction, which consists of ½ time in the shop, working with the latest equipment that's out there, and then ½ time working with Ready to Work North and upgrading skills. This is our 2nd program, it runs from September to December and the 12 week work placement starts after that. The participants are funded, they receive an allowance while they're in school. When they are out working, the program is designed to help the employer, we will reimburse the employer \$x after their 12 weeks.

They learn about carpentry, they learn about plumbing, and they also learn about some electrical. Not a lot of time spent on the plumbing aspect, nor on the electrical, most of the time is concentrated on the construction side, or the carpentry side. There is over 125 hours dedicated to shop time for those, and there is also classroom upgrading as well, so they can learning carpentry math, we do reading comprehension with them so that they can go out and purchase things that are on a list. It's pretty general, but we have had some good successes so far.

The Mine Access Training program was a 17 week program that was run in the first semester, so we combined those guys with the Building Trades Helper program as one classroom, as opposed to running two separate Ready to Work North programs. So they participated in the Ready to Work North, and in the afternoons they did Mine Training Access. They learned about different geology, aspects of mining, they learned about under ground access, all participants did their First Aid, WHMIS, Safety and the Young Worker. I can't tell you a lot about that program because I'm not completely involved in it. You can just go on the webpage and get the program description.

Right now, in conjunction with the Building Trades Helper program, we are running the Welding Access program. It is just an introduction to give people some insight into what welding is all about. They learn how to use the tools, they learn basic welding techniques, and it's our hope that by introducing them to the welding that they can learn whether they want to go on and to pursue a career and apprenticeship in the welding field. That's also a 17 week course.

We have made a financial commitment for the new Women in Mining, Oil and Gas program they are developing, and with any program development, the College would be supportive of trying to make a good marriage there.

All of our programs are open to women, it is recognized in the world out there that women are much more accepted into the apprenticeship trades today. We don't separate people on a gender specific basis. Providing the applicants meet the criteria that's laid out for the entrance, then it's just a matter of going through our screening process. I do not know if women students complete at the same rate as men, I am not privy to those statistics. We spend a lot more time trying to explain the workplace to women students, the cultural differences. Part of the Ready to Work North program does concentrate on the cultural differences that we have to experience, so we are just providing information.

I think that isolating women in women-only classes is not really helping them. My experience is that women are probably more confident in the classroom environment and perhaps less confident on the floor working with the tools, but I think you are building another barrier by just having a course or a whole program dedicated strictly to women. Eventually they have to go out and deal with men in the workplace, so if they are not going to do that in the classroom environment, how is that transition going to take place? I can certainly see breaking out some of the classes, but women have to learn to work with men, the same way that men have to learn to work with women, so if you are separating them both, it just doesn't make any sense.

Upgrading is part of the program. The Building Trades Helper program is not intended to prepare our participants for access to the trades programs, this is a stand-alone program. The welding and the mine training, if they are interested, if they want to further their career development in those areas, they certainly have the opportunity to go through the apprenticeship system. It's not to say that the Building Trades Helper program will not allow people to go into the Apprenticeship program, it is just not designed to accommodate that. So in the Building Trades Helper program, we are dealing with basic upgrading, general numeracy and literacy skills. It has its own upgrading curriculum built into it. So carpentry math, rather than trades math, and basic comprehension so that we can ensure these participants are able to read and understand a list they are given, they learn about budgeting, those types of skills, very general. The curriculum for those upgrading courses would be available through the Department of Education. It is a module within the Ready to Work North program.

I don't see any role for distance education in delivering any of these programs, there has to be an instructor on-site at all times when you are dealing with equipment, you can't let somebody sign out a piece of equipment without knowing they are well trained on it and know the safety aspects of it, and so much of that is observation. So I would say "no" to distance learning in that context.

If you were going to develop any new curriculum, you would definitely want paper text, and resources for instructors. Depending on the level of the participants, and any physical challenges they may have, you might need to have the same program on a tape recorder or on software. So if they have a lower level of learning, if they are not a read-and-learn person, then at least they have the ability to grasp the materials through audio equipment.

Any program that you're going to develop needs to go through a test market, you need to have a group of people who are able to present the program or at least test it, and almost every group's needs are going to be different so you have to be able to evolve and change.

Carol Wrigglesworth
 Manager, Video Conferencing
 Ardicom
 3rd Floor 5120 – 49th Street
 Yellowknife, NT
 Phone: 669-0062
 Fax: 669-0852
cwrigglesworth@ardicom.ca

Notes From An Interview with Carol Wrigglesworth:

Low Bandwidth Demands (Least Expensive)	Medium Bandwidth Demands	High Bandwidth Demands (Most Expensive)
Accessing text from a content server	Accessing audio from a content server Broadcasting – one way sending of information over video- teleconferencing facility, eg watching a video, or a lecture but no return communication. Number of stations receiving is	Accessing video from a content server Interactive, two way communication over video- teleconferencing, eg a meeting. "Symmetrical communication"

<p>Using SKYPE and webcams plus a microphone and speakers, or headsets, for conversations, sending low resolution real time images, eg demonstrating safe use of a tool, or lectures.</p>	<p>unimportant. “Asymmetrical communication”</p> <p>Using SKYPE and webcams plus a microphone and speakers, or headsets, for sending higher resolution real time images, eg such as used in Telehealth, of skin, or inside ears.</p>	
---	--	--

Some workable options, available now:

8. Use SKYPE and webcams to deliver inexpensive “real time” training. For example:
 - Send a Power Point presentation by email about how to use a tool. Student runs the PPT presentation on their computer, and practices on their own, or with the assistance of a local resource person. Student can stop periodically, or at pre-set times, or after completing a specific exercise, to ask questions of the instructor, using the webcam and microphone/speakers.
 - Instructor delivers a lecture to several students simultaneously at different locations. Several people “conferencing” can then participate in a discussion using webcams.
 - Counsellor or coach provides one-to-one consultation to students using webcams.
 - Students use SKYPE to chat by text then agree to meet for webcam group discussions.

9. Use video-teleconferencing facilities in Yellowknife and Fort Smith. For example:
 - Keep students who are attending hands-on tools training at Thebacha Campus in touch with coaches, counselors and other staff of the WMOG program in Yellowknife.
 - Allow students in Fort Smith to view a keynote speaker at a conference in Yellowknife, and to interact with conference participants.

Some options that might be workable in the future:

10. Use a content server to store and archive content of various types. For example:
 - On a dedicated server, store information which students can access with an access code at their leisure.

- Text content: assignments, articles, texts, references, polling for opinions on new course content
- Audio content: recordings of lectures
- Video content: photographs of completed projects, audio-visual recordings of demonstrations, safety videos, instructional videos accompanying power tools (“video streaming”)
- On a dedicated server, a public interface available to anyone can provide information such as registration information, program descriptions and dates, how to contact staff.
- Rent space to store content on someone else’s server (eg ARDICOM, or Aurora College). Users (eg WMOG pilot project students) have an access code and costs are sent back to the organization renting the space (eg WMOG)

It is likely that either Aurora College or the Government of the Northwest Territories will purchase a dedicated server in the next few years. It is likely that Ardicom will purchase a dedicated server to rent space to community organizations and businesses by sometime in 2009.

This approach is used by several Canadian universities and colleges.

11. Use video-teleconferencing to link smaller communities in the NWT. Currently, there are units available to the public in Yellowknife and Fort Smith. In other communities, there are units reserved specifically for Telehealth and for court business. There are no firm plans to provide wider distribution of video-teleconferencing, though discussions are underway between ARDICOM and various organizations. At best, it will be several years before this technology will be widely available to the public.

Cate Sills
 Executive Director
 NWT Literacy Council
 Yellowknife, NT
csills@nwtliteracy.ca
 867-873-9262

When the Status of Women’s pilot project proposal to provide pre-trades training for women was put together, we were asked to provide an orientation package for program candidates, including math and English skills assessment, providing information on trades, identifying learning and career goals, addressing barriers to participation, life skills training, help applying for Student Financial Assistance, referrals, tutoring and a follow-up workshop. A lot of community based literacy is based around issues such as life skills, and integrating literacy into those types of activities. That was about a year ago.

Our interest is still there in supporting them with that piece, we are still willing to follow through on our commitments on that. But at the moment, we have kind of lost the thread on where things are at. We would like to consider re-working the proposal, so that we would provide the tools and someone else would do the assessment directly. We are prepared to train somebody, if they could identify someone, it could be their instructor. We could help with the assessments, I am not sure we could do the tasks to the full extent of what was proposed because of our staffing issues, but we could certainly help train and support someone else to do it.

Our intention, once we get the go ahead, is to develop a resource that would guide that whole process, it could be a legacy beyond just this project. People could adapt it and use it in other contexts. We have some bits and pieces of tools, we'd like to knit some things together so that it's a useful package for people. There are some really good literacy assessment tools that we have been training literacy practitioners to use, mostly in reading and comprehension and we have done some research into math assessments as well. The College's math assessment isn't bad, but there are other tools out there as well.

One of our areas of interest is workplace/Essential Skills, there's a ton of stuff out there, not necessarily women-specific, but there are a lot of good resources that have been developed. We know literacy is a huge training issue, so how do we imbed literacy into skills based training? We are really interested in exploring that question and supporting other people to do that too. That sometimes is the missing link. We all know that literacy is a problem, but when we go to deliver training programs, we're not addressing where people are at in those training programs in terms of their literacy skills. Literacy is not in the forefront of how people design the curriculum and how people design the learning activities so that they are constantly reinforcing the literacy skills that people need to be successful in the training. People have a lot of skills. Particularly in the trades, people are very good with hands-on activities. They know how to build things, they know to fix things, and they know how to drive a truck. But where things get difficult is when they have to go get certification, have to write the exams, and have to pass the theoretical parts of trades. So I think if there are ways that programs such as this can continually reinforce literacy skills throughout the program, that would be really helpful.

We have to start talking about how to do this stuff a little bit differently, and I think that working with women, using this as a springboard to demonstrate how a training program can integrate not only literacy but also the supports that people need to be successful through the whole training process, would be really good. And I think the uptake to a program like that would be huge. That is what is missing. The College does not do that, they are an institution, they have very specific academic outcomes that they expect learners to be able to achieve but all the other bits and pieces that make a successful learning experience aren't necessarily there.

We want to do something around imbedded literacy, enhanced workplace skills training that has literacy and what they would term as the "soft skills" that are integrated into

training. That's really what Essential Skills is. When you look at that list of Essential Skills, a lot of it is "How do we work together, problem solving, team building, and communication skills." The College is also aware of the need to look at this type of thing, particularly in small communities where there is a high demand for job related training, not necessarily ABE, so how to integrate the two? People still need the literacy stuff but they also need to be trained so they can take advantage of the employment situation that's out there. I'm not seeing a lot of movement about being creative to deal with this sort of issue. There needs to be some exploration about how to best accomplish this.

Colleen Proctor
Former Manager of Apprenticeship and Occupational Certification
Department of Education, Culture and Employment
Government of the Northwest Territories
upfront@incentre.net

We don't have any programs that are specifically for women at this time. We fund Aurora College which has done some programs in conjunction with Status of Women. We do have a program called *Ready to Work North* which is for people at entry level but it is not specifically designed for women. It's based on the Conference Board of Canada's Employability Skills, Essential Skills and the skills identified by a cross section of industry for entry level workers. We have funded the Federation of Labour to bring in Dr. Braundy for two sessions, one in Yellowknife and one in Fort Smith.

I have had many women in my classes, but I have never been involved in a specific training program for women. I found that they needed child care, the child care issue was huge. From what we hear from the mines, childcare is an issue for them too, because people find that their childcare provider calls and says they don't want to do it anymore, or you're not able to get the funding to them fast enough to be able to pay the babysitter, there's lots of issues. They have a lot of family issues to deal with. Some are single mothers, and even if they were in relationships, the women seemed to carry a lot of the responsibility for the family, so supports are needed.

In the classroom I did not find that I needed anything different. Sometimes there were issues among the women themselves, for example they are not always used to working in teams, often women are used to doing things for themselves, so often they did not have a grasp of teamwork.

And of course, there are lots of literacy issues. Huge literacy issues, literacy was often weak. They had a lot of experience and were very capable but they could not read the texts or could not measure, they did not understand the concept of a quarter or a half or decimals or deciliters or milliliters. The literacy and numeracy issues were huge, that and the child care.

We would add literacy and numeracy training as best we could within the confines of the course because in cooking it was relatively easy to show how people what a ½ pound of butter or a kilo of butter looks like. It's easy to include math concepts in cooking. The math and reading skills usually came as a result of them being interested in the cookbooks or being able to explore more so we always worked with lots of cookbooks and magazines. Often they would pick up the magazine and read something else in there, not just the recipe. However in the courses I was doing at that time, you had to do any upgrading within the confines of the course. Some of the students had come through ALBE or similar programs but a lot of them hadn't taken any kind of pre-training. In other pre-employment programs, they had the levels to enter into the program, but in a lot of programs, students just can't get into them because they don't have the grade levels.

There were lots of personal issues. Students would use that term, it could be anything from a boyfriend to lack of financial supports, family, addictions, social things.

We have rules and regulations that we have to follow if someone wants to offer a pre-employment program. If it is just a trades access program, there are lots of things you can do, but for a pre-employment program, there are rules because they are leading to designated trades. A pre-employment program leading towards a designated trade – let's use carpentry as an example, - the curriculum has to be based on and meet industry standards. There is some flexibility in the upgrading components, to get people ready to pass the trades entrance exam required for that trades, and then hands-on, which is equivalent to a first year apprenticeship. If the student passes the pre-employment course, and passes the trades entrance exam, the student is allowed to challenge the first level apprenticeship exam. So there are guidelines that come from Apprenticeship. In our case we use the Alberta Apprenticeship materials for carpentry.

If it's a trades access or other kind of access program, then there's lots of flexibility in how those are done because they don't enter into the actual designated trades. But if a student wants credit for that program, let's say they take a pre-trades program in carpentry, that program has to be accredited by the Apprenticeship, Trade and Occupation Certification Board. The Board is going to look for certain things. The Building Trades Helper program is a good example, individuals who take that program will get credits towards their apprenticeship for the hours, for the full length of the program. So if you want credit, then it gets more complicated. Mostly you want to provide credit to students so they get their time recognized.

So the normal progression would be that first the student takes a trades access program to work out personal issues and "am I really motivated and is this what I really want to do and is my math up to par" and so on. And then they go into a pre-employment program, which is a regular trades training program. If they meet all the requirements, they have their first year at the end. They would then have to find a position to apprentice in and carry on through the system.

We find once the students are in the apprenticeship system, they usually stay. It's getting them in that's the challenge. And usually it is related to the literacy issues, they just can't pass the trades entrance exam. They also probably don't have the childcare and the supports that they need. Also, lots of jobs are designed around 12 hours shifts, if it's summer you work till 10 or 11 at night if you are on a construction site if there's work to be done, especially in the communities where contractors come in for short periods of time. It can be difficult. How do you work around the family, because often they are the primary care giver. It's the same thing when they go up to the mines, the babysitter phones in the middle of their two week rotation and says, well I'm not looking after the kids anymore, or I have a family thing and I'm leaving.

I think if your group wants to do things to help women succeed, part of it is encouraging them to stay in school in the first place. That is huge. Getting as much education as possible to help them along. There needs to be the right kinds of financial supports to make sure they can get some kind of quality child care – sometimes I don't really know how that happens. It might be useful to offer some preliminary courses to help women get ready for the more advanced pre-employment courses, which work quite well but they need to deal with some of those other issues ahead of time, because the drop out rate is quite high.

I also think there is training you could do within the college system to make the whole environment more amenable to having women come into the College and into the classroom. There could be a resource center. If you have dealt with some of the issues up front and then you have a college that's aware and open to dealing with more women, it would help women be successful. I talked to a female trades student in Fort Smith a number of months ago and asked her "What would have helped you come in?" She said, "Some additional information up front". She liked being part of a class with males in it, she said they were helpful and respectful, but she didn't really know what to expect before she went. I thought that was kind of interesting.

I think that gender equity programs are really good, but you have to be very careful about how you place them. That's why you need to work with the College to come up with something like that, rather than just say "Here we have a cure for you". I think if you work with them, work with the College instructors to help them recognize and identify, it might work, but if you give them something you might get resistance. We can get resistance when we don't even want to impose something new, we just want to make a change or clarify something. People are apprehensive about change lots of times, because they think it might be something negative about them, when in fact it isn't, it's just that change often is not easy to implement.

I know that Saskatchewan and Alberta are doing interesting things, but I have not really looked into them in any depth. Our agreement is to work with the Status of Women and the Federation of Labour as far as possible to make some changes, if in fact, that's what is needed. I think we need more women in the trades and occupations, there's no doubt about it but there's a lot of things that need to be addressed. It's just not as easy as saying "Let's put these things in place", because then you have to put in the hours in the

workplace. We get a lot of guys that don't like being away from home for two weeks, or going south for training, or going to Fort Smith for training. But the reality is that if you want to do technical training, you do have to go to a college at some point, somewhere. The way the apprenticeship system is set up, nation-wide, you can't avoid that. If individuals find that's the direction they want to go, they have to make some concessions.

Is there enough money in place? As it stands now you go into a trade, the expectation is that you go on EI and there is money to help with tuition, childcare, travel, but is it enough? What do you do with your home environment? The first time you go to school, it takes two weeks or longer before you get your first cheque from EI, so what do you do in the transition?

We are conducting a review right now around some of those things, but we won't have an answer for quite a few months.

We use the Alberta Independent Learning Modules, ILM's. They also have course outlines that detail what's in Level 1, Level 2, Level 3. Those are the same course materials that are used in the Northwest Territories if an individual is enrolled in a pre-employment carpentry or first level carpenter. The Building Trades Helper Program is an industry developed program based on our occupational standards. It is a designated occupation in the NWT. We have videos, textbooks and other resources. What we focus on is the requirement of the occupation, not outside skills that may be required. Everything relates to the technical skills, except for the Ready to Work North program, which is based on what the Conference Board of Canada and industry has told us about required entry skills. It includes a bit about self esteem, and attitudes towards work, but it's not designed specifically to build self esteem or deal with social issues and problems that people may bring to the classroom.

In the Apprenticeship and Occupational Certification section we don't have any plans regarding using distance education. My experience is that lower level learners need a lot of one on-one-or mentoring, I think that if you did distance education, you would still need someone in the classroom at the other end. I don't think it's appropriate for people to work on their own at that low level because they really need the interaction. I know from a person who has done some distance work with the College that they have a lot of problems with band width. In the summer they were trying to do some courses, but when forest fire season came along, they got bumped for the aircraft, and they get bumped for Telehealth.

We looked at the idea for Apprenticeship to see if we could be doing some exams on line as other jurisdictions are, but if the power goes off in the middle of a session they lose their exam, then they've seen half the questions, so the short answer is that I don't think we're planning anything in the near term. I suspect that as things get better, we probably could do things like exams by distance, but I'm not sure that would be appropriate for training for the type of students I think you're talking about, unless there was an instructor in the classroom on the other end.

They could do some work on line. But I think that computer literacy skills will be an issue. I still get calls from my old students asking me to help them with emails or a resume. Those resources are available at the career center, and at the Tree of Peace, but I would suggest that a lot of people who need them are still not taking advantage of them, or aren't computer literate enough to know how to use them.

That being said, I think there probably is room for a CD program or something that is easy to play with and that would get them active and involved. But again, I think you'd want it in some kind of classroom setting.

Theoretically, it would be possible to hook up a woman in a community with distance training from her employer at a remote mine site and possibly other sources of training as well, but there would be issues.

I have spoken to adult educators at all three of the mines, they tend to take people for short periods of time and work on things that are work related, for the most part. So if you're having trouble reading the WHMIS labels, they go to their job location, they check it out, then they develop specific materials around those things. I think they do some basic upgrading if they want to get into a trade, but most of their upgrading is around work related tasks. If you need to read three specific documents, then that's the ones they work with. As a result, they get better at reading in general. I don't know how that would work in the grand scheme of things if you were just trying to do upgrading. But why would a woman not just go to the community adult educator if she needs upgrading. I don't see what the advantage would be of being tied into the mine, unless you were working there part time and you did some upgrading when you were home and wanted to still touch base with the adult educator at the mine.

I think they are sharing a fair amount of resources with each other, probably not with anybody else, certainly between Diavik and BHP there is some sharing going on. In theory you should be able to connect people up, but who is going to help the woman at the other end? Is she going to go in and work on her own independently, or how would you set up that network? And you need to have a more reliable system, but yes in the future I'm sure that's possible.

When you think about how they do with Telehealth – they have a doctor there, you can see what's going on. In my experience there's a lot of times you need to show people. For example in cooking, you want to show people about the displacement of water, all you have to do is measure some solid substance like butter or margarine and fill the container with water and you can see displacement. So you have to be able to show. If you have something like Telehealth, it would be really easy to do. But if you're just talking or relaying messages by computer emails, - I personally hate math, I need somebody to show me when I'm learning math - if someone had just sent me an email and said just do this, and this, I couldn't do it. I went to a tutor who could show me and work through it with me. I have some understanding of what it means to struggle with a subject. I have to be shown. Somebody else might be able to hear it. But you already

have the issue of literacy, it becomes more difficult if you're just reading materials. If your literacy level is already low and you're having to read the instructions on how to do math, I don't think it would work. You could have the voice as well maybe, but if you could see the instructor it would be better. Like the math and science teacher on the ACCESS channel, you can see what the teacher is writing on the blackboard on the TV. Something like that might work. If you were broadcasting through a TV station and everybody tuned in at 2:00 and they could also phone in and ask questions, that could work quite well. But I don't think the computer is the answer. Unless you can have that capability on your computer, but it eats a lot of bandwidth and you would have to have a high level computer also to receive it.

More instructor resources would be great. Most instructors have computers, and proximas, and most can easily use CD's. Most instructors are dealing with people at several different grade levels in one classroom, so the more resources you can give an instructor, the better. The ALBE math and science materials have just been upgraded. I don't know how you would deliver the materials that you are going to develop, you'd have to work in conjunction with the Department or the College. In the school curriculum, they are developing new science curriculum for the trades, they've already developed a whole bunch of math for the trades, for the school system. Get them early and get them staying in school, and get some of those concepts in there. Resources are good, you just wouldn't want to develop them and then not be able to use them.

In terms of hands-on physical skills, if you're going to show people how to use a hammer, then you should look at the Alberta materials that are based on the trades. You might only use a tiny bit of those materials, but my recommendation is that you use something industry related like the building trades then just add in whatever you need around the woman-specific stuff. But let them take something where they are going to get credit. Otherwise it just defeats the purpose of letting them get ahead on one side but then they don't get credit for the program because it's not based on industry standards. You could probably work in combination with the College to develop some of those preliminary skills you would like women to have.

Have you talked to very many women about why they aren't going into the trades? I think there is a more fundamental thing at work than not having the literacy levels. My perception is that if you are seen as a woman in the trades, there is a question about your gender, what your leanings are, and it doesn't go over well in the communities. If a young woman goes into the trades, then people really give her a hard time. If they want to work at the Band office then it's much more acceptable because they can just drop work if the baby is sick, they can just go. But if they are up at site, they just can't do that.

Our commitment towards the Status of Women project is that we would provide specific funding to develop marketing and information materials around women in trades, that was our specific contribution. Also money was given towards operational costs because they have to have partners for funding. We have had marketing campaigns in the past, but people said, "well she's butch". Some of the women are beautiful, attractive. They are all in their trades clothes but that seems to be part of the problem. If you could just

show an ordinary woman in an ordinary outfit, then “it could be you”. As soon as you put them in their trades clothes, you’re putting a stereotype on them, in the perception of some of the people in the communities. You think you’re profiling this woman, and she looks great in her hard hat, but it wasn’t the image they wanted to portray because they put an edge on it. Why couldn’t she be wearing tiny ear rings and a necklace along with her hard hat?

I’m really not sure what the answer really is, because even if you look after everything else, how are you going to look after the childcare? A lot of young women who might be candidates for the trades have children.

I am really looking forward to seeing your research. I have sent out a lot of the materials you gathered before to various people, and they get hauled out periodically. We have had a question back about the briefing note that you did before. There is interest, but because there are so many other priorities, and we’re going through this big review, I keep hearing that we need to get the review over with before we make any fundamental changes. That’s not to say we can’t participate or be involved in other things.

We may need to do a wholesale housecleaning of the way Apprenticeship programs are delivered. One of the questions I have is about funding, because of the requirement for EI, apprentices don’t qualify for Student Financial Assistance. Would we be better delivering the training in a different way, instead of eight weeks out of every year? Is that practical? So if a woman, or a man, is able to go to school for a whole year, and take a trade program, they could move, they could get appropriate child care, they could get supports from the College, assuming they were in place, then come back and apprentice. Maybe that would be much better than going on EI and trying to work things out that way.

I think there are some fundamental things that could benefit both men and women if trades training was delivered in a different way. But right now, we don’t have an option to deliver it differently. There are the pre-employment programs which are eight months long. There are some trades in the south where you can take a two year program like cooking, but it’s only available in a few trades. The electrical program is starting to involve modular computer-based training, so individuals can do computer assisted theory training before they go to school and they just have to do the labs, so that shortens the length of time.

But then, if we shorten the length of time, there will be a new problem, because their living away from home allowance is based on an eight week program. That money is paid upfront as their tuition, so if they only go to school for four weeks, they have to pay the money back. So in one way it’s great, if they have these computer assisted modules and if people are real keeners, they can do most of their theory even before they go to school if they are motivated that way but they’re penalized because they get the money and they probably have spent it and then they have to give it back if they are only there for four weeks instead of eight. If they can get through their lab work in a shorter period of time then they have to pay the money back.

So there are some things that we need to look at overall in how we deliver programs. We are following the system across the country. We have a certain amount of flexibility, but really very little. There is an agreement around the Red Seal program in particular, so for any of those trades there are a lot of rules about how they are administered and delivered.

That whole thing around EI is a Canada-wide problem, there's no jurisdiction where an individual can get funding from Student Financial Assistance for Apprenticeship, it's all through EI, all across the country. So maybe we need to be looking at delivering Apprenticeship in a whole different way.

BC has made some fundamental shifts in what they're doing and that's causing lots of consternation across the country. You can go a certain distance before you have to become an apprentice. They say it is working very well, but other jurisdictions are saying that apprentices coming out are not as well trained because they haven't had the on-the-job experience, they have all this theory but they don't have any practical experience. So I don't know if it's a good thing or not.

They are trying to make Apprenticeship training more user friendly. They've broken the trades down into lots of little components, you can be a framer, or you can be this or that, but you don't have the scope of the trade any more. Carpenters used to get exposure to different things, and now they just do framing, or just do – whatever. Same thing with plumbing. They get a contract for a high rise and all you do is install toilets for three years. So breaking down the trades doesn't go over so well.

But in reality, that's how buildings are built. You go in and do all the rebar work, and then somebody else does all the concrete forms, and then someone else does another piece. But you would only do concrete forms for that apartment building, you don't go out and do all the other types of concrete work, you might work on just that one high rise for a long time. You might work for a whole year just doing forms on one construction site. So you don't get the full scope of the trade. Is it a good thing to make a trade out of just concrete pouring? I don't know if that's a trade, I'm making that up, but I know they have people who go in and just install toilets or bathtubs and they don't do any other kind of plumbing, they might spend months just doing that. Is that a good thing to produce plumbing in segments?

Greg Skauge
Head, CTS Department
Sir John Franklin High School
Yellowknife Education District #1
Yellowknife, NT
Phone: 669-0773
Fax: 873-3630

g_skauge@learnnet.nt.ca

I am Greg Skauge. I am the head of the CTS department here at Sir John Franklin School. I am a teacher by trade.

Our trades program is situated around the CTS program offered through Alberta Learning. The Northwest Territories follows the curriculum of Alberta. We use the CTS modules that are part of the Alberta Learning curriculum. That is where our background knowledge comes from. We offer computer applications such as webpage design, animation, computer repair, basic application programs such as Excel, Microsoft Publisher. This is pretty much self directed learning, whatever the students want to learn, they can learn. Our computer teacher is also ½ time computer tech for the school, he is very knowledgeable, and he can help students go in pretty much any direction they want to go.

Chris Fournier was a student of ours here, he won a national web page design competition, then went on and won gold at the world skills competition. He gained many of his computer application skills here at Sir John.

Other areas we offer here are: media studies, TV and video production, electronics, automotives, small engine repair, food studies, business and tech courses, entrepreneurship, legal studies, construction, aviation. The aviation program was started about 12 years ago as an orientation to the whole aviation industry. We look at theory regarding how an airplane flies, some sheet metal work, a bit of engine work, a bit of welding, and some other construction. We try to open their eyes to the whole aviation industry. It is a huge industry up here.

We do a welding program. Our shop is small, but it serves our purpose. We have all the major tools that would be used by a welder. We give them the background knowledge and some hands-on skills needed, if they want to pursue the trade.

Our classes are mixed. All Grade 9's come to explore six different options for six week blocks the last period of every day. They have the option to explore different areas that they may be interested in. It is kind of a stepping stone when they come into high school to help them make some decisions about what they want to do. In the Grade 9 Options class, we get about equal numbers of boys and girls in the trades areas. The girls do very well. In some cases, most of what they do is superior. By Grade 10, the numbers of girls drop off quite substantially. One of the reasons is the old stigma that the trades aren't for girls. Not that we are trying to promote that idea but it does happen. Also we lose most of our academic students that are planning to pursue university careers because they don't have time in their timetable or they spend a lot of time taking all the electives they need, all the math and science. Those are two big reasons.

Just like in all schools, you end with a percentage of students, both male and female, that aren't as academically strong, but they have to get their credits to graduate, so we

get a number of them too, which is OK. We are giving them some hands-on skills that they can use in their everyday lives and that might help them get a job in the future - that is what we are trying to do. One thing that is attached to that though is that there is a stigma attached for both boys and girls that trades are for dummies, and that's far from the truth. Both boys and girls that are weaker academically that would come here find that out, too. Yeah they can have fun in the shop doing some of the hands-on stuff, but learning the theory and the written work behind the hands-on work, they have trouble with. That's where more education has to come in that skilled tradesmen have to have skills and also you need to be academically a skilled student to handle a skilled trade. The responsibility lies on everybody, on parents – I have parents who have worked in the trades, done very well in the trades, own their own business in the trades and don't want their kids going into the trades. They want them to do better than them. What they don't realize is that there is a good chance that their kids won't do better than them if they go to university and continue on. That stigma is very much out there.

I think it happens here in the education system, I am always trying to change that, but I think that teachers inherently want their kids to do the best they can do. They might say "You only want to go into a trade? You are smart enough to go to university, why don't you head towards university?" We need to change that. That is one of our teachers' ignorances, we don't need to push all these people to university. In the next ten years, the number of jobs that will be open in the skilled trades will increase exponentially. Not just here, but all over North America. That's where more promotion and education is needed. Once we get teachers and parents and even business people on side, then the rest of it comes easy.

After talking to you yesterday, I had some thoughts about whether it would be interesting to run a couple of courses just for girls to see if it did make a difference, if that was what was holding them back. The girls' skill level is as good as the boys, those who have any interest in it. I am going to get in touch with administration and see if we could try a class and just see how that would work out. One of the problems we have here is scheduling. Having a block system where they only take four classes a day, it makes it more difficult to fit their schedule but I think it would be definitely worth trying just to see if more girls would try it. It would be nice to have a boys' group and a girls' group running at the same time to see what production is like in the end.

Part of what makes our trades training successful is that we promote learning at your own pace. Also giving everybody a chance is another big one, I try to be very equal. When you have boys and girls mixed, and you have a girl that you know can do it but hesitant, I try to give them as much guidance as needed learn the skill because once they've done it and they know they can do it, it's that confidence thing. I have not done a male / female comparison. But the amount of credits that we are accumulating in the CTS area is growing every year. So slowly students are getting the hint that trades are important, and having a wide variety of courses for the students to try helps too. Having a variety of courses with overlapping skills allows students to try one course, if their skills are stronger in a different trade that can move into that course instead. That's part of the positive approach.

I guess the other reason for success is the quality of the instructors we have here. Our students win medals every year territorially and very often nationally in the skills competitions. Also on staff, we have a journeyman carpenter and a journeyman automotive teacher so they bring their knowledge with them, that helps the students to relate to the real world.

I would like to be doing more work placements, which is one thing that is lacking. There is still that mindset in the students, that this is just school material and not things that you really would do in the work place. But to actually link their school work to real world work could be the tie in that would grab them, instead of having them just in the class. That's one thing we need to work on. Right now the only students we have doing work placements are lower functioning students who are out learning life skills. If we can get more students who are doing skilled trades out in work experience, even if it's just for a week to see that what is done in the classroom is done for a reason.

In addition to the Alberta CTS materials, we have also contacted NAIT and other colleges, we use some of their modules. I show students parts of different modules they would use in first year in the trades. It shows exactly what they would use, I don't see why you need to pull the wool over their eyes. I try to be quite honest with them. We will do the odd NAIT module. "If you go NAIT in the trades, this is exactly what you will see". That way they don't have to be scared of what might be ahead. It gives them some idea and prepares them a little bit. It might scare them a bit to crack down on the academic side. They need to know that if they want to be a welder they won't be welding all the time while their in school, there is classroom work to learn the theory that is also a major part. We try to give them the real experience of what it's like.

With kids that academically they can do it but they are a bit less motivated or maybe not as sure about themselves – it shows them – hey if you think you are going to do this for a living, you need to be able to this, because this is what you are going to see at trade school. That's important for them too. It's a bit scary for kids up here, it's different than for kids down south, to go to school, they have to leave home. Leaving home is a big enough thing, the more prepared they can be, and the closer to real life the experience they have, the better chance for success.

Also, we are involved with Skills Canada, and that's a way for the kids to see where their skill level stands in comparison to other kids in the Territory. Overall, we do really well, we usually have five to ten kids competing nationally every year and just that experience of competing nationally is great, they can talk to the kids their own age and see what other kids are doing in different parts of the country. Most of the kids who come back from there get really excited, it's strong positive reinforcement that they are doing something interesting. Like (the student who just dropped in to the classroom during our interview), she competed last year at the nationals in graphic design, I'm sure that's something she's thinking of pursuing in the future.

I have not set up any new programs here, it's different here in a public school setting. But funding is always a challenge. I think that if the need is brought to people in the right way, especially the trades people, who are starting to realize that there needs to be money put into setting up places for learning trades - if they need workers and there's not enough being produced. I think that approaching those people in the right way will get you sponsorships.

That's a big challenge. To run any of these programs you need tools, materials, any resources that you are going to obtain all cost money, that's probably the biggest issue you will have. The government is there to help get things like that started for producing more skilled trades people.

My advice is to keep at it, keep promoting, it's slowly becoming a focus everywhere, in schools, even in advertising for trades workers. Persistence will get you set up and will bring you students. You might be on to something if you are looking at starting something that would be a separate entity. That might be a draw to women who might be a little bit intimidated by the co-ed school system. It could at least give them some confidence that they can compete with the boys. It's OK to have something separated, but at some point they need to be intermixed again so confidence is what they need. It's rare you have courses that are completely women in the trades but giving them confidence will then allow them to work in the male setting to do the same jobs.

We are not yet involved in distance education. Here at school we are in the process, we have received a little funding and we'll see if our board's going to give us the rest. Some of the funds will improve technical trades courses for subjects in which we would not have enough teachers or students to have a class here. It's coming, it's not here yet but we applied and got a grant which will go mainly towards web cams and computers and maybe a space.

To a certain extent, I can see a role for distance ed in delivering some of our programs. You could do it, but at the other end you would still need to have some resource people to answer those questions that can't be done over the wire. We have talked about that because we are one, if not the only automotive shop up here in the NWT. If we could offer some sort of service to people outside of Yellowknife. It would be a way to offer a program to communities at a far less cost.

For distance education to work, whether you're getting it from somewhere else or broadcasting from within, you need to have skilled people at your end so students can get the off-air time help that they need and also you need the equipment, they need to have the hands-on experience or you will lose the students.

We partner with the mines a little bit, there may be more coming in the future. They have donated money to us for programs, four or five years ago they donated some money to start a small engine repair program. Last year Finning Canada donated three tool boxes with \$4500 worth of tools in each of them.

We do not use computer managed delivery to manage trades training right now. We are just in the process of looking at doing some multi-station lab work. We have lots of hands-on equipment, we have lots of computer software that allows for independent learning which I think could be a really positive asset or improvement to these areas for a few reasons, one is that it allows you to expand the courses and the things that you offer and also it allows students to learn at different paces. That's one thing we are striving to add on because every aspect of a lot of jobs use computers.

The key is to catch girls at a young age. More and more people know that there is a shortage of skilled trades people and that's where there's lots of jobs but the kids are coming with less and less skills all the time. I'm 30. When I was a kid, our parents had lots of skills, lots of people knew how to build a garage or shingle a roof, or change the oil in their car or change the spark plugs or do some minor electrical work. So we had a chance to work with our parents and get some of that hands-on experience and at least got our hands dirty. Kids who are growing up now don't necessarily have the same opportunities we had as kids as less and less people have any of that background and people just hire out the work. Giving them the chance to try it would at least give them a chance to see if they are interested or not and that's where we should put our focus. Letting them see it instead of just hearing the word "welding". They could have a chance to try it and say either "Wow that's interesting" or "Gee, that's scary, I don't like it".

We need to, as a whole community, push a focus back onto skilled trades and try to get at kids as early as we can. I would like to see all the kids getting some hands-on experience. Not to push academics away, but at least allow them to experience some of the different trades out there. Maybe it was different because I grew up on the farm, but my friends and I did things with our parents, and I don't think many kids are getting a chance to do any hands-on things around home anymore.

To gets more girls in the trades we just have to keep doing our best to educate people and encourage girls to try it, and maybe trying things like a girls' class to see if that takes away the boy/girl, dirty hand/clean hand thing away. It just allows them to try without any peer pressure. It would be neat to do that. It could be a top topic for the next two hundred years. The quicker, the better. It's something that needs to be done.

Joanne McGrath
Co-ordinator,
Education Operations and Development
Department of Education, Culture and Employment
Government of the Northwest Territories
Yellowknife, NT

Phone: 867-873-7458
joanne_mcgrath@gov.nt.ca

Distance education has been available to high school students for the last six years. It was sort of viewed as the answer to grade extensions, so that students can stay in their home communities and not have to go to larger centers to complete Grades 10, 11 and 12. So students would be able to access a full menu of academic courses to complete high school graduation. And in fact, that does exist.

However, in some of the communities, until very recently anyway, the internet has not been stable enough or fast enough in some of the very small communities like Sachs Harbour, Tuktoyaktuk, and Lutsel Ke, to offer a bona fide course. It just takes so long to load pages and to load documents, that it has been so frustrating, it's not viable. In fact, it's probably better to go the old route of correspondence courses where you've got the paper in front of you, you fill it out, and you send it in.

But I always maintain that the problems and issues we have now, in the future will not be a problem because technology is ever evolving and improving. I'm not much of a visionary to see where it's going, I guess I don't keep abreast of all the new fangled things that are coming out, but I just know that it is evolving and it will continue to evolve.

I know that in the Yukon, they use distance education the same as we do, for their high school students, and they do have better success there because they have better connection. They have had high speed internet connection in all of their communities so bandwidth has not been an issue and they have moved their facilitation model forward a bit. Now that means they have some schools with excellent success rates and some schools with poor success rates. A lot of that has to do with on the ground, who's in the school, what teachers are making it work. The personnel are pivotal.

In the NWT, we have some schools with a better success rate and some schools with a dismal success rate and it really has to do with the facilitation model. Are the students time tabled into a certain time when they have to go into a computer room and work on-line and do their work and be accountable, or are they given a password and told "Let me know how it goes". That's not useful, to a high school student or to an adult student either, if there is no accountability, unless you are very disciplined. So that's where we are now. Having some success in some schools, less success in others. Most of the students are accessing academic courses that would help complete their requirements for their high school graduation.

We do offer an on-line Northern Studies course hosted here in the NWT. That is a high school requirement here in the NWT, they can't graduate without it. For those kids who maybe arrived to the NWT a little bit later on, or it can't fit into their timetable and they're graduating soon, sometimes there is a bit of a last ditch effort to get the Northern

Studies program and it's so available on-line for them. So that works out for them. That is one that is hosted at Aurora College.

That's our distance education. It involves total Web CT formatting or a desire to learn formatting so it's all available on-line. Students have to be good readers, in order to navigate all the print because they're heavily print based, and they have to be able to type their responses in and dialogue with their teachers long distance. Alberta Distance Learning does have an 800 number, so that teachers can be phoned but I'm not sure how often that service is used. Anything you can do to promote the human relationship contact with the students and teachers, of course that's going to improve your success rate.

There are teachers in the NWT who have come here with some distance education experience in different formats. The principal in Tuktoyaktuk has had some experience with videoconferencing with distance education modules. The kids have some face-to-face interaction through videoconferencing. We haven't tried that yet, it's been a problem of equipment and bandwidth, and being able to set it up. It might work here in Yellowknife, and it might work in Fort Smith, but maybe it's not going to work in Tuk because they're on satellite and they don't have the bandwidth to make it viable. But that's evolving and maybe eventually we'll be able to use it.

The Yukon Government committed to spending a lot of money to put the infrastructure in place, I'm not sure how many millions of dollars, but that is sort of the backbone of their programming. They've got a very viable infrastructure. We have been gradually improving our infrastructure through the terrestrial lines, and as more and more communities get off satellite delivery and on to terrestrial lines, then there's more satellite space that can be allocated to the remaining communities that are still satellite served.

There are other issues too, where the infrastructure might be in place to deliver a large bandwidth to a school, but the wiring in the school is so outdated, that it doesn't allow this big pipe of information to be fed through pipe cleaners. So infrastructure is a problem. And having the personnel to go in and diagnose and remedy situations as they happen is important. In some of our communities when the internet goes down, it's down for three weeks. That happened before when the students were signed up for on-line courses, the internet goes down and they've missed a big chunk of a short course and so they've just withdrawn.

I think there are some things that could happen to improve the success of the on-line courses. These are some of them to improve the infrastructure so that it's more stable and sturdy, and then when kids sign up for on-line courses, they know they are going to be able to count on the service when they click on the computer, it's going to work for them, it's going to work fast and efficiently.

I think too that some of our students struggle with literacy, not that they can't read, but they spend a lot of time de-coding words and they get so bogged down in sounding out

and looking at syllables and reconstructing words, that it takes away from the comprehension of the whole piece. So I think that a voice-over IP might be useful, then you'd have somebody reading the text to you, you can focus on the content of the text and not struggle so much with trying to put the pieces together, which is so laborious that you lose interest. So I think that voice over IP might be something to look at for distance ed courses. Sometimes as adults, it just takes the stress off, you can just listen to somebody reading it to you. It's like having a teacher in front of you. You've got the print there to support what's being said but it's not so fatiguing as trying to get all the information off a screen and reading it, because many of our adult workers have literacy issues. So do we spend seven years to get them to ramp up their reading to a point where they can read these on-line courses, or do we help to take the focus off of the reading and put the focus on the content of the course?

I'm not all that familiar with video conferencing as a delivery method, but from what I read, it seems to be very effective, especially with the aboriginal population, they like to hear someone speak to them and having the opportunity for dialogue and asking questions might be easier through videoconferencing than through an email type of communication tools.

The other thing that helps is breaking things down into short modules. A five credit course is a long haul and some of our students go out on the land so there are always interruptions to the course. One thing that is good about on-line courses is that they can go out on the land and when they come back, their course work that they have done so far is archived and they can continue where they left off. If they're going to a traditional school approach, they are always signing up for biology 30 for example, and taking the first six weeks of biology 30 and then they never get past the first six weeks. With an on-line course, they can go to the first six weeks, they can take time to go out on the land, and they can come back and continue where they left off, and progress through the course instead of being so mired down in sections they have already seen before.

Maybe we should modularize our Biology for example and give them one credit for one section of the course and a second credit for the second section of the course so that they can check off parts that they have done. The trouble with that of course is the Departmental Exams at the end, how long can you stretch out a biology course and still be able to write a comprehensive exam at the end that goes from Unit 1 to Unit 5 and know it all for an exam? That's a lot of review. Because we are so hooked in with Departmental Exams, that can become an issue, extending courses over a very long period of time, over a year or two years. And yet that seems to fit with some of our learners, it seems some are just not geared to having five month semesters. They need to learn over a long period of time to stretch it out but then the exam covers that long extended period of time.

So those are some of my thoughts on ways we could improve access. Just chunking down courses, having voice-over IP, spending a lot less time ramping up reading skills because literacy is not all about decoding print. It's about comprehending context and concepts. Sometimes I think we spend so much time on teaching reading, when people

are intelligent enough, if you showed them how to do things, of they were able to explain it orally, you could see that they do know the information, they have the skills.

I guess those comments come from experience I have had with my nephew recently. He is not a real academic student but he was working on a distance education warehousing program, basically a correspondence course, where he had to read through the material and challenge the exam. He's been working in the field for nine years, he knows all the information, he can tell me everything, it's no surprise, but he has to translate his knowledge in the end into a multiple choice test. Some of the questions on the test are not all that relevant, yet if somebody was to follow him at work, ask about all the information he needs to know about at work, dangerous goods, shipping and receiving, he would be able to tell them and he would be able to demonstrate that he knows all that information, however it doesn't work so well through a multiple choice exam.

I think that is reflection on a lot of learners, especially adult learners if they have been working in a field. Think about young students in farming families: kids learned how to farm by sitting on the tractor with their dad. They didn't have to read a book to learn how to be a farmer. In a trade, so much of the information people need to know to do a good job is hands-on. Obviously a welder needs to know the theory, like chemistry and mixing gases, there is a place for pencil and paper learning. But does it always have to be represented in pencil and paper? Can you not do oral exams, so that people can tell you what they know? My nephew is 30 years old and writing multiple choice exams now for the first time since he left high school. There is a strategy for writing pencil and paper exams. So you're talking about content, about exam writing strategies, skills that people may not have if they have not been in a school environment for 15 – 20 years.

I think that sometimes we make the mistake of equating literacy with intelligence. We have a lot of really intelligent people who might not be able to read a book. But they are very skilled, you ask them to do a task, you show them how to do a task, and they're off and running without very much coaching. So I think we need to look at different ways that people can represent their intelligence besides pencil and paper tests.

My uncle, a retired Saskatchewan farmer, keeps his hand in farming by working as an examiner at the local feedlot. The community has built a brand new feedlot that services the region. High school students work at the feedlot and earn high school credits. When they are to be examined, he follows them around and asks questions, they demonstrate their knowledge, and they earn a credit. They don't have to sit down and write a pencil and paper test, they have to show and tell what they do in a practical environment. It's a very practical exam. And why shouldn't it be?

We've got a lot of labour-type positions here in the NWT where it really could be "show and tell". Show me that you know, demonstrate your knowledge. Not through a pencil and paper exam, but just real life, where it counts. I think that fits with the culture, I think it fits with the learning style of a lot of people from a variety of cultures, not just

aboriginal cultures. But we are really stuck in pencil and paper. Distance learning courses are an extension of that because they are so text based.

I suppose that now, having high speed internet in each community might make on-line distance ed courses more available and more of a viable option because they'll work when the students log on and the pages will load faster so it will be more learner friendly. However, I think that needs to be evaluated on a community-by-community basis. I think it's important to talk to people in the community, to have a contact person in each community, because they can let you know if the internet is up, or if the internet is down, how long is it down for, tracking the stability of the internet.

I know there has been some talk of having an inter-departmental working group with staff from Department of Public Works, from the Department of Education and from each of the school boards. Yellowknife schools and schools in the larger centers in the south part of the NWT are pretty well served, but in some of the other remote communities there is more of a challenge. Different departments are responsible for different parts of the infrastructure. The Department of Public Works is responsible for getting high speed delivery to the school, the Department of Education is then responsible to provide infrastructure within the school. In order to do that, they have distributed funds to each of the school board offices so they get involved too. "OK, you've got this much funding, how are going to use that funding to improve the infrastructure? Does it mean updating the wiring, updating the computers?" So it requires a concerted effort on a few peoples' part to make sure that what is being delivered to the school is able to be used within the school. I don't know if that group has been actioned yet or not.

I am not sure how helpful a master, departmental server will be, it may allow video conferencing through web cams, I am not sure what capacity will be there and what sort of add-ons that will allow in the different communities. It is best to find somebody in each community to ask "How is it for you?" It is my understanding that in some communities, the internet service at the school may not be great, but if students are at home and access their personal email, due to the infrastructure in place through SSI Micro, they have much more success, it's more reliable, faster. It leads me to believe there is some kind of a disconnect at the school level, maybe a firewall, there are so many variables. I'm not that much of a techie, I don't really understand all of that.

If a woman were to be somehow connected in her community to a server in a remote mine site for training, it would not be routed through us. It would be necessary to hook up the minesite with home service somehow, maybe through SSI Micro, where they could have a seamless access to their course. They would log in, the course would look the same if they were at the minesite as it would if they were in Bechoko. The course could be provided anyplace else, so long as it is on-line and you can log into the internet, to access your course at the minesite. Technically you should be able to log into your course through the internet if you are at home. There has to be that continuous loop. Also when they are at the minesite, there would have to be some portion of their day allocated to classroom time. It can't be a situation where they are working a 12 hour

shift and then they have to go to school for three hours. The company would have to support their learning during their work day, if the company is truly wanting to promote people within the organization. I think the mines probably would be supportive.

On the K-12 side, we are very hooked into Alberta curriculum because of the Departmental Exams, so we use all of their academic courses, we just add on the Northern Studies and extra courses that pertain to us. With Alberta Distance Learning, they would be willing to adapt pieces of their course for a northern context, at our will. So if you are doing concepts about weather, or ice, freezing and thawing, they would certainly be willing to have people use examples of weather in Tuk or in the Deh Cho, weather examples relevant to students in that region, instead of having to talk about weather from Medicine Hat. So all of the content in an on-line course can be adapted. However, if you've only got one student taking Chemistry 30, how much effort are you going to put into adapting a chemistry course that might never be used again for another ten years? The same with physics and those kinds of courses. With math, I'm not sure how much context you'd change, maybe the names of people in case studies. And some of the math problems could be changed from an agricultural context to a hunting context or a mining context. They are willing to adapt those things, but I don't think those modules would be relevant to pre-trades training for adults in the workplace.

I think that whatever courses are available down south are able to be adapted. Alberta Distance Learning people talk about their experience doing that with schools all the time. I think once you've got the mainframe of your course, it's easy enough to change things within the course. So if you had a larger population of students that would be using those modules, it makes it more and more worthwhile to change them to fit your context.

One of the big hurdles for distance education is attendance. There is a model of distance education that is getting a lot of attention, at the Sunchild Reserve in Alberta. The courses are not that different than the courses that our students get, what is different is the facilitation model. The high school students there have experienced some very high success rates for course completion and graduation. They have rooms where the students are expected to attend every day to take their on-line courses, so they have time in their timetable where they come into school, they are expected to work on-line, and they are accountable, they are working through their workplan and sending in assignments. It's very structured, the support is structured. There are facilitator/teachers available in the classroom, to help students if they have questions about content or assignments, they are right there, shoulder to shoulder, to help those students decipher what the problem is and then get them going on their assignment and helping them to finish. A lot of the people working in that classroom are aboriginal people as well, so they are role models. They don't have to be the physics expert, the physics expert is the teacher at the other end of the distance education module, they could be in Red Deer or Edmonton or Calgary, wherever they happen to live. The thing that makes the biggest difference is the facilitation model in the classroom. Students are expected to attend, they do attend, they are expected to complete their assignments

and they move them towards graduation. It is that structure, the regular attendance, and the work ethic, that is critical in their success.

So when we hear about the Sunchild Reserve and they've got this great success rate, their courses do not look that much different than the courses our students have access to. Our success rates however are quite a bit different from theirs because in some of our schools we don't have that facilitation model.

Whenever kids sign up for on-line courses, I talk to the school personnel and I say "Do they have a room where the student can go to, will attendance be taken when they show up at that room, do they have to be there every day." I was speaking with one facilitator today, he looked through a list of students and the ones that are very successful show up every day and they do their work and those ones who aren't successful, he doesn't see them, they don't come to class. It's not rocket science, having the structure, the support, having someone there to ask questions. For content questions, like physics, if the facilitator can't answer the question, they can at least facilitate the student phoning the teacher and having a dialogue over the telephone or maybe arranging a videoconference with the web cam. They facilitate ways the student is going to get an understanding of the concept. They don't have to be an expert in physics, the expert in physics is the teacher. It's interesting how that works. The stats, at face value, don't tell you that.

So how do we encourage our students? We could have lap tops in classrooms in every community in the NWT but people need to come regularly and they need to be working on their assignments, they need to be supported to work on their courses. So how do we support them? By deciphering the difficult assignments to make sure they are not wasting their time doing an assignment that's not answering the question or if the problem is that they don't know how to write an essay, how can we give them a short course on essay writing so that they can get marks for an assignment that requires essay writing? That's the facilitation that needs to happen. I think that's probably the key. Attendance is a real issue. Because especially with on-line, you can't teach them if they don't log on.

I think that it would be good to explore other methods of distance education delivery, as the Yukon does. Maybe Aurora College already does some of that, I think that they may. I know there was an Early Childhood course that was offered a few years ago to some classroom assistants and some people working in the 4 Plus Program, were taking some Early Childhood Education courses from U of C. They would go to a video studio that was set up by Northwest Tel and take part in the video conference. I think they found that effective. I believe that was through Aurora College. It would be interesting to talk to them about their experiences and success rate with those types of deliveries, and how many communities is that viable in? Is it going to work in Gameti and Wekweti? Or does it only work in the larger centers?

I think there are different ways that distance education courses can be offered that might be more in tune with learning styles of a lot of people that have a more visual way

of learning. Kids these days are heavily into video and iPod messages, I don't think they are really that much into reading, not that they can't, but I think if you can deliver it visually it would probably have a lot more appeal. I find that the older I get, the more I scan, and if I can't scan and get the information in a couple of seconds, I get impatient, I don't want to stop and read the whole thing from beginning to end. If it's instructions and you realize you can't do it any other way, you have to stop what you are doing and read through and guess what? It makes sense. But it is kind of frustrating because our attention spans have been shortened so much, we get instant delivery of banking, information off the internet, that reading does seem like a slow process although I still enjoy it for novels. But for things like doing taxes on-line, I just want to be able to do it quickly. If I have to read lots of text, I'm not that interested. I don't know if more and more people are like that because some computer home pages are so friendly and so visual that when you have to go to the dry toast, it's not that engaging.

Kim Moreside
Former Director of Training Programs
Native Women's Association Training Center
Yellowknife, NT
kmoreside@hotmail.com

The main program we have been concentrating on is the Pre-Trades and Pre-Employment program. It is for men and women, but mostly women take it. It has three areas: One is for women and men who want to go into trades that don't have the skills to pass the Trades Entrance Exam. They do an interview, we assess what their goals are. If they are below grade 12 level or have lost a lot of their skills for whatever reason, we determine they would probably fit into our program. We have an orientation, anywhere from two days to a week, we assess their math, English and computer levels.

If they are going to improve their skills for the trades, they need to know how to use a computer. They work on the three main subjects of the pre-trades test, Math English and Science. We also give them computer classes, health and exercise, and work experience. We start with a placement test.

After the assessments, we divide the students into three streams. One is for those who will need to prepare for the Trades Entrance Exam. They will work on all sorts of applications that prepare them for the Trades Entrance Exam. They may still be doing low level math, but the applications are going to be trades oriented. Also with science.

The second stream is a literacy program for people at beginning levels in reading and writing. We have a language specialist that comes in for the afternoons for two hours to work with them one-on-one then as a group. They work through the Laubach reading series. (*Laubach Literacy International*, www.laubach.org/home.html). She also does

more thorough testing in hearing, sight, speech and comprehension. We go from there with their learning plan.

The Laubach series has reading comprehension, vocabulary development, phonics, helping them to write better, knowing how sentences work. It is at the very basic level but there are three levels of it. They have a story, they have to answer questions to do with the story, they have to learn the words and how to spell them, and be able to write questions and answers. The questions are patterned. I understand it has been very successful in Ontario, and people in other provinces have used it as well.

She also uses other resources. They also work on novel studies, how to read a book. At a little higher level they look at reading novels, language in the workplace, reading negatives, reading diagrams, matching diagrams with pictures. The direction we give each teacher is that they need to apply it to the workplace, to trades would be a good idea. The students have been told that this is a pre-trades course and that is the direction we try to steer people, but some will decide that is not the avenue they want to go down. The applications are for work, and if possible, the trades. The Nine Essential Skills identified by HRSDC as being important is underlying all of that.

The other stream is ABE, Adult Basic Education, for people who are interested in advancing their levels to get into Aurora College but are not yet sure what they want to do, maybe nursing access, maybe accounting. It's a pre-employment program to help people understand whether or not that is really their goal. There is a work experience component.

It's pretty challenging to have a schedule that can help three different streams of students get through three different levels of English and three levels of math and three different levels of science. We start off with everyone doing the same introductory level of computers, using windows, how to operate the computer, basic word processing skills, what the computer is about, all the advantages to it, using the internet, getting them on to email. After that we offer a more advanced level with particular programs like Power point, Excel, Access.

We also provide a health and exercise course for balance, to help people understand that when they are working or learning, they need to keep a balance of taking care of themselves, and to get some physical exercise. We have guest speakers talk about diabetes, stroke. We also get them to go to the gym, to Breakaway Fitness Center. We get passes for them for about a month. We show them the importance of stretching and how to use the machines and the weights. We do this in December, after they come back from their work experience. We have been using a health program that the NWT Literacy Council developed. It includes quitting smoking that was successful, we had a couple of people that actually did quit. It was good for them to understand all the aspects of smoking. There are also units on nutrition and exercise.

We have career classes before the work experience part of the program. This unit is through the ABE program, it helps people to understand what skills and interests they

have, and understand themselves, and help to understand whether or not they really do want to get into certain types of work. Working with their hands, working with numbers, and so on. The career course has to do with self, and planning, and labour laws, discrimination. By the time they have gone through the career course, we transition it to a work experience preparation, where they are working on their resume, and that goes into computer class as well. They work on how to do a cold contact call, what would you ask, what would you say, what kind of information would you want to jot down after the call. We do mock interviews and explain the four main questions they should always prepare for, "What are your strengths, what are your weaknesses for that job, what do you know about that organization, we have them research as much as they can about the organization, and what they want to get out of their work experience. Just about every time we have an interview, those are the questions the students are asked, they can plan before they go into the interview. Then they write a cover letter and prepare the documents you would fax or email or take to an employer. Then we guide them into a follow up call to set up an interview.

Usually the places we select are places we have used before for work experience, but if the student wants to try something new, we help them contact that place and explain the work experience program. Some times the new employers are willing and sometimes we need to talk to them a bit more to explain our program. We have a contract that summarizes how long the work experience will last, our WCB coverage, their expectations, the evaluation they do after the two week work experience, logging their attendance, that the student will be shadowing someone and what skills they will be learning over the two weeks.

The interviews are set up the week before the work placement starts, with the student, an instructor and the employer. By that time, the employer may have an idea what they would have the student do, so in addition to asking the student questions, they also explain what the student will do to learn the occupation. We go over the log book with the employer and explain that we will visit the workplace a couple of times over the two weeks and possibly take a picture for our records as well.

Both the employer and the student do an evaluation, at the second visit from the instructor, we sit down and go over the evaluation of how the experience went. The evaluation is based their attendance, their readiness for work, how much initiative they took, how confident they were. It gives the student an idea of what kinds of improvements they can make, what strengths and weaknesses the employer saw in them.

Sometimes we have unsuccessful work experiences and those are learning opportunities as well as the successful ones. Sometimes with successful experiences, the student has been asked if they want to work there in the summer or weekends. Those are other successes that have come out of the program. Last year one of our students went into Nunasi, she was from that area and could speak the language, she had some office skills, but she lacked confidence and had to improve some of the other areas she had forgotten about or wasn't sure, her computer skills were fairly good, she

had been to Academy of Learning, but she needed to apply it to the workplace more. She needed to brush up on some of the practical things about going into a workplace, so we guided her through that whole process. When she finished in June, she applied for jobs everywhere, put her name in at the place where she had worked in her placement. They had really liked her when she was there, an opening came available and she is working there now. So the program was successful for her. After the Academy of Learning, she hadn't quite finished her course, she couldn't get a job anywhere, she had several interviews then she got hired on at Nunasi in the end. We thought that was quite good.

The second semester starts in February, by November we have already taken in lots of applications from people who have heard about our program that decide they might want to come here instead of somewhere else, but we don't normally take people in part way through a program so we tell them there is a new semester coming up in February. We gather the applications, contact them, do follow up and take a new group of students into the orientation at the end of January. We have had up to 35 people coming here, at the moment we have 13, we have cut back because we are hoping to take in another group of students in October that have to do with the Women in Mining, Oil and Gas (WMOG) program that the Status of Women is doing. There are some changes being made to our program, we are planning to work with a select group of women who didn't quite make it for the cut for the WMOG program, but need to improve their math or English or science, so that group will be separated from the group that we are doing now in this program. It's all being developed, so I can't tell you a whole lot about it yet.

We are always trying to get people to apply early to apply for their funding, it does cost to have the instructors, when you have three streams of students coming through, the scheduling is more than one teacher can handle. So we have three instructors right now. It is a challenge with 35 students to make sure all the needs are met.

The lowest literacy level has always been the most difficult because they require more one on one. It's been two years that we've had the language specialist and been able to help those people more and more. Some students come in here not able to read at all, and now are reading some. One student is interested in becoming a truck driver, so she has to be able to read manuals and do log books. One of her interests was to get her learners license right away. She got the signs, but not the other part of the test because she still has to improve her reading level and how to take tests. The lowest literacy level has been the biggest challenge for us. We have addressed that with extra staff with a specialty for that level.

Having specialty staff such as those that teach computers, that can teach English properly, can teach math properly, they are always a challenge to get. When you are in a non-profit organization, you're not paying as much as they would make in a college or in a high school even. There just isn't the capacity for that here and the funding is limited because we're sharing community literacy funding with a lot of other groups.

It's difficult to get accreditation as well, we're not a college, not a university, not a high school, we have to rely on having the tests for Grade 12 taken at the College, the Trades Entrance Exam is taken at the Greenstone Building, if we were accredited we could do our own testing here. We do have exit exams that we do through the ABE but of course they challenge what we've done. They do their own tests even, after that. I don't have a problem with them, we're doing the curriculum, what we should be doing, so if the students pass our testing they should be able to pass the College's as well. Those are some of the challenges in terms of recognition, funding, getting instructors, and meeting the needs of the students at the lowest literacy level. Those are the biggest challenges.

Having a smaller organization does have its advantages, there's more one-on-one. We have a caring community type of feel to our group, so that when our students are having trouble we do try to help them as much as we can in terms of referral, and other students help other students with problems, so there's that caring support that might be missing from a college or a big high school, that they don't have anywhere else. We're able to follow what they are doing in each course a lot more easily than in a larger organization and can recommend what kinds of things they can improve on.

I think the work experience aspect of the program has been a big success, regardless of whether their idea of what they wanted to do was good or not, they have learned something from it and we've been able to assist people in their career path. We've also had people go to the College from here and been very successful, they have gotten jobs in the College also, so Native Women's has been around for more than 30 years, so it's got some successes all over the place. They did once have a center that was accredited, but the accreditation went to Inuvik when they opened a center up there. Now that center was closed, the accreditation didn't come back here, so we have to start that all over.

Last year we did pre-trades programming as an assistance for people who want to try to pass the trades Entrance Exam. Now that we are starting the pre-trades program more seriously, we are really calling it pre-trades. I think it will help people to realize there are more jobs out there in the trades than there are in other areas and it will come to light for aboriginal people I think, but that's to be seen I guess.

My advice to anyone starting up a new program would be to see what programs are already out there, and see how they would fit into the community and have a plan that would be rounded. A lot of adults coming into a program are not necessarily sure what they want to do, so you need to have those career courses to guide them into what it is they're going to make their goals on. Short term courses are not as successful as longer term, so they should plan the courses for longer than a ten week course, because it is not really going to develop the skills in math, English and science. Those three courses do take a while to develop.

I would also say they need to get some support behind them in terms of larger organizations. For example, the Status of Women is behind what we are doing here,

they have written us support letters. The Literacy Council has already identified that we have best practices. We do have to lobby with the MLA's and the Department of Education to help us. We have done that successfully in expanding our program. They need to be aware that networking, partnering, getting support behind them is extremely important. They are not going to make it out on their own. It has to be something that people see value in, and it takes a while to get your credibility up and running.

I would also say that incorporating work experience into your program is very important too, especially for aboriginal people. Any adults need hands-on learning to understand where they are at and what they want to do.

We also look at how they learn. Some people don't learn best just through hands-on, it may be auditory or visual. There needs to be a broad way of teaching people, not just teaching them by lecturing or book work. Especially adults that need applications through their learning. They have experience, it will just help them to learn faster.

Our funding comes through the Department of Education, the Community Literacy Development Fund, and also through the Aboriginal Human Resources Development Agreement (AHRDA), and the band councils have other education funding. We have applied for other funding through HRSDC and through the Literacy Council. Some smaller pots of money have come from different places. The AHRDA has tuition-based funding to help students do ABE or other post secondary training. It's one person, one tuition sort of funding. They also support with living allowances. Income Security helps adults that want to make a productive choice, and especially if they are at a low literacy level, they recognize that this is a productive choice for them. That's part of the Community Literacy Funding, they don't give us any tuition, but they help the student with a living allowance and their housing. They can also receive employment insurance through AHRDA if their literacy level is low enough, but they have to be aboriginal

At the moment the idea of distance education is still in the thinking stage, we have no definite plans. I think that blended learning would work, distance education plus classroom, and also the hands-on, going to work experience, I can see that would help people. Say someone is in the workplace at BHP or Diavik and they wanted to do module work. We could definitely help them with module work, but they would also be working in their workplace. I can see that kind of thing happening. Also, helping them with life skills classroom learning. I see that those things might be in the future but I can't speak for the organization on that.

We use Excel to keep track of student progress. We create our own tests through computer and our own assessment tools. We have had some guidelines through the Department of Education of how to track what's going on with the students in terms of who's coming in. There are some pre-trades assessments that we don't actually do here but we find out how they did. The same with the grade 12 Departmental exams.

We do our own practice tests and progress reports using Word and Excel. We also had an attendance program through Access but we're not using it this year.

We use the Adult Basic Education Series. We use a number of their modules, including their computer module, which includes a checklist for what needs to be done. We can use any resources we want to as long as we go through that checklist.

In computers, things are always changing, so this year we will look at resources for Windows XP. We look at the Office package to learn about different software applications. We talk about Vista and the new technologies that are coming out. I have been using this ESL computer book for Microsoft Word. I got this from the National Adult Literacy Database, it explains the computer and the Windows environment and goes through Microsoft Word. This is at the very basic level. Even what is in here is out of date, they talk about 3 ½" floppies. Not many people use those any more, we have to update what we tell them all the time.

For math, we are trying to use the Red Deer College pre-trades materials that ECE has been giving to people, we will also use them for science too. The Red Deer materials go through numeracy skills, it's not much different from other materials that cover basic numeracy, but we're seeing how well it's laid out. It prepares people so they can use formulas and use algebra if they need to. I pull from lots of different resources. We use Fundamentals of Mathematics, (Barkers, Rodgers, Van Dyke, 6th Edition, Sanders College Publishing, Harcourt Brace Publishers), also well laid out. We use both the basic and the advanced levels.

I also have the distance learning books for Math 10, 20 and 30 applied, that we use at the higher level, from Alberta Education. We also have used the ABE series out of BC. We use those for students at lower levels. We have a lot of returning students who have already done these books so we are using others with them now for variety.

We use Numeracy at Work, (Skill Plan, BC Construction Industry Skills Improvement Council). Also Document Use at Work is part of the series.

The Genesis series books for trades in math I don't use, I find they are not very useful, there are a lot of mistakes so I have abandoned using them at all. There are calculation mistakes, lots of print errors, typos and some of the explanations are over simplified so they aren't really mathematically correct, so I don't use them at all for math. I use the Genesis materials for science sometimes, some of it is OK but I have had to supplement those too. These really were not intended to be used as texts, I know that.

We use the high school books for what people have to know and we go to the internet also for resources and we have developed our own tests for science. We have started with the Genesis materials for science and develop out from there. We've had people pass the Level 5 Trades Entrance Science Exam this way, and another who passed the Level 3 exam. So it has been successful. Some other students did not pass the Level 2 Exam, but they were struggling anyway, one of them came back for more help, we are trying something different for him to learn the science and math. We also supplement the science program with Science 7 and 8 from McGraw Hill.

For English we use the ABE series. The Trades Entrance Exam looks for reading comprehension which can be done in any kind of course, so writing, reading and speaking are covered by the ABE at any level. From time to time we have used the Genesis materials in English for multiple choice questions, but again, they are not that useful. There are short passages and they have to answer multiple choice questions just to show you some of the competencies you need. But with some of the questions you could argue that, well I would not necessarily answer it quite like that. But the Trades Entrance Exam does have multiple choice questions so we continue to use the Genesis materials for preparing for the Alberta competency tests. In the ABE materials they learn about letter writing, document use, how to be a discriminating reader, and how to write essays. In other courses they cover other types of writing like log books in the work experience, and in science they learn about reports and power point presentations and public speaking. It seems to be well rounded in the ABE English modules. Looking at diagrams and documents is also covered by the English teachers. They are aware that applications in the classroom should be work based, Essential Skills based as well.

The Health and Literacy module from the NWT Literacy Council's Health Check Series. It covers healthy eating, smoking, alcohol, healthy living, STD's and AIDS.

We use the Mavis Beacon typing program to learn keyboard and improve their typing skills.

For the work experience program, we got a lot out of a series called Cultivating True Livelihood, Work in the 21st Century. (Denise Bissonette and Louise Baker, and Milt Wright and Associates. It covers things like how to make a call to an employer, how to write a cover letter, how to write resumes, and contacting employers.

We also use Document Use Refresher for Apprentices from the Government of Nova Scotia, Department of Education and the Nova Scotia Community College.

The rest of our sources are from the internet.

I think it's important to track people, keep the records of what people have done and assist them in way you can holistically, that has been a bonus for people. Help them get their funding, help them get their goals set out, guide them through the process of employment and getting back on the path if they have had addictions or dropped out of school. Holistic education is the way to go. There needs to be a caring environment for that to happen well. For women that is key for helping them deal with things that come up.

There was an article in Readers Digest about women who had been in the trades for 20, 30 years and all the struggles they had, and some were still there. Some of the discrimination is still there, but it's better than it was. They had to face families who gave them a hard time about going into that sort of career. As women decide to go into the

trades there needs to be that caring and preparation that is not necessarily out there. It doesn't have to be something they have to tough out, in terms of putting up with abuse and comments that do happen.

Good luck with your project.

Larry Connolly
Director
Kimberlite Career and Technical Center
Yellowknife Catholic Schools
Phone: 766-2900
Fax: 766-2901
lconnolly@yellowknifecatholicschools.ca

When it comes to distance education, Newfoundland has had very similar problems to those you in the NWT have had. The geography problems have been identical. They have a distance learning group set up that runs out of Memorial University. They would be a great place for you to contact, because they have been there and done this. STEMnet (Science Technology Education Mathematics NET) is the name of the group. In many of the schools in Newfoundland, we had the same problems that the NWT does. We have a small community, where you can't offer all of the high school programs, you might have only three students who want to do advanced math, so all of these programs are done through distance.

I do not think they are doing any trades training by distance. There is not a lot of trades training in the high school curriculum. I was blown away with what I saw here. I am aware of some success stories from women in trades programs. A neighbor of mine did the program in Newfoundland. This was a person making big money, \$60,000 a year, and all of a sudden – gone. She was out of work. “Now what do I do?” She did the program, went back into the workforce and she is now managing one of the big retail chains right across the province. So I know these programs work.

We also did a judicial videoconferencing pilot on small bandwidth. We partnered with the Supreme Court and did a lot of the family cases in small communities by video conferencing. On that end would be the lawyer and the client, and some court staff. On this end was the judge. It cut down on transportation costs, it didn't tie up lawyers who had to travel into the family court, which was very very successful.

Margaret Imrie
Vice President, Academics
Office of the President
Aurora College

Fort Smith, NT
867-872-7012
mimrie@auroracollege.nt.ca

We have our major focus on apprenticeship and trades training at Thebacha Campus, although we do some pre-trades training and introductory training programs at the Yellowknife Campus and at the Aurora Campus. We offer a variety of programs.

We have a number of introductory level programs, such as trades access, introduction to mine training, and a pre-technology program. Generally the focus is on upgrading and assisting the students with their skills and knowledge in the areas of math and English so they are prepared to pass the appropriate Trades Entrance Exam.

We work closely with the Northern Alberta Institute of Technology (NAIT) and other institutions on a number of initiatives. The apprenticeship programs delivered in the NWT are, for the most part, based on the standards used in Alberta, although our Apprenticeship and Occupational Trades Board here looks at that program and identifies certain things that need to be included for the Northwest Territories, so we work closely with that board as well.

Our introductory programs include trades access programs, which are fundamentally upgrading and offering some trades related courses. We prepare students to try the Level 1 Trades Entrance Exam. We have one program specifically for women, called the Women in Trades and Technology (WITT) program, based on the Building Trades helper program. It is upgrading, and introducing women to the trades area. We have had that program for several years. The Status of Women's Women in Mining Oil and Gas program may be using some of our curriculum.

In the Women in Trades and Technology program, we will be doing a course called Trades Foundation Skills. That is a five hour course in the classroom and in the lab about introducing students to the various potential for trades out there. We have an Introduction to Tools and Materials, an Introduction to Carpentry, an Introduction to Mechanical Systems, and an Introduction to Electrical Systems. And then we have a very extensive course of 100 hours called Ready to Work North (RTWN), which is a program we imbed in a number of other trades and introductory programs, or it can be a standalone course. RTWN introduces people into the working environment of the north, gives them some career development skills, some writing skills, how to do resumes, how to conduct yourself in a working environment. It's very extensive, it has been delivered on a number of occasions now in the NWT, and Nunavut is going to pick up on it, they have been inquiring about, but it belongs to the Department of Education Culture and Employment. We are just looking after the delivery of it and training trainers to deliver that course.

We don't have as many women instructors for the hands-on portions of the program as we would like. However, we have two women coordinating and teaching in Trades

programs - the Building Trades Helper and the Mineral Processing programs. Additionally, we have another woman who also instructs in the trades program area.

I think the general philosophy of the College makes the programs successful. We support students through the student success centres, through tutoring, through on-going consultation with them throughout their time at the College. Those personal supports are the key. We have a student success center with a co-ordinator on each campus. You can drop in any time and use the facilities, use the computers, talk to the co-ordinator. The Co-ordinator gets referrals from the instructors and can help set up tutoring. It's very much that way. Plus we have elders on campus and an elders' room and counsellors that can assist with personal issues.

We have controlled curriculum that we use, we have committees that look at the curriculum on an annual basis, we have policies that support that and that guide us through that process, we take all our programs to our board for approval. Everything is written down, that is why I am sitting here reading from the master copy of the approved program outlines for this program. We have an M.O.U with Nunavut and with the Yukon College to share curriculum. In fact, I just forwarded curriculum today to Nunavut Arctic College.

We work closely with other institutions such as NAIT and Southern Alberta Institute of Technology (SAIT) in a partnership. NWT students will do one or two years here then transfer to NAIT, SAIT or elsewhere. For example, in our Mill Processing Program, students complete the first year at the Thebacha Campus and then transfer to NAIT for their second year. We work with them in joint projects. For example in our Mill Processing program, that is one that transfers to NAIT, so they do the first year here and then they go down to NAIT. Our Pre-Technology program also leads into students going down to NAIT to get into other programming areas.

I believe that support is critical to student success – academically and personally. For example at Aurora College we have specific services and areas that include a culture room, Elders on campus, family and recreational activities, a Students Success Centre that offers academic assistance, the availability of a personal counselling services – in other words services and activities that assist and support a student to move into a location and an academic environment that they are not familiar with.

Stories about how students do not want to come to Fort Smith to go to school have been around for 32 years when I first came up here. I think you hear stories not only about the College but also about a lot of government departments, a lot of organizations. I think it's too bad those stories persist. In the north, we're really hard on ourselves, and don't give credit where maybe credit is due and we base things on the past and don't have all the information to make those statements sometimes. So I don't know why people would say that in this day and age. I can certainly say from my position, and this is not just the corporate line I am giving you Kate, but the College does some pretty amazing things and in many ways, not just in the trades area. At the present time, some of our staff are attending a conference at North Western College in

B.C. on de-colonization. We are equal to or even ahead of many other colleges in addressing the needs of our aboriginal students and what we are doing everything possible to support them.

I understand that NAIT is trying to do some distance education in their trades programming. I think that some of the academic courses may lend themselves to distance education and I think that would be wonderful. We have a problem with distance education in the NWT because of our connectivity challenges, outside of Yellowknife. It's not good at all. We are all trying together as a college and as a government to try to correct that, but it is a challenge at this point.

If you are delivering distance education courses you need to develop curriculum specifically for that form of delivery and you need to train instructors to work in that area. We would need to look at our curriculum and probably revise it accordingly. We already do it in different areas, but it takes people with specific skills to deliver by distance. It takes time and skills and curriculum, all those things play a major part in that kind of delivery.

We are purchasing a Mobile Trades Training Lab (MTTL). Realizing the need for a trades training facility in the region, Aurora College began working with a fundraising consultant. Funding was eventually committed by the IRC, GTC, GNWT (ECE), DIAND, CIBC, and Aurora College to purchase an MTTL from Peel Truck and Trailer of Mississauga, Ont. Out of this facility, Aurora College will deliver Introductory and Pre-Employment training – training that will better prepare people in the region for apprenticeship opportunities, or simply meaningful and rewarding trades employment. Training will take place in the following areas: Carpentry, Plumbing, Electrical, Mechanics, and Welding. Currently Aurora College is working to develop quality trades programs that will provide opportunities for residence of the Beaufort-Delta region to gain challenging and rewarding employment.

The community-based approach should enable the training to reach a larger number of women, as some women have family commitments that do not allow them to leave their home community.

The MTTL is comprised of three units: 1) Main Training Lab: This unit is where all training will take place. It is heated, well lit, and is suitable for trades training. It is powered by either single phase or 3 phase power (small and large generator). Alternatively it can be connected to land power if available. 2) Supply Trailer w/washroom and grinding room: This unit has a fully functional washroom and a suitable space for grinding metal etc. 3) Supply Trailer: This unit is a simple van trailer that will be used for storing training supplies and tools. All three units are standard tractor trailer dimensions with standard axle and airbrake systems that allow them to be pulled by standard trucks or rigs. With the exception of the Main Training Lab – this unit retracts from both sides seven feet, creating a shop space approximately 1000 sq.ft in size.

The MTTL will stay in Inuvik for at least the first year. After we have delivered a few programs out of the unit and have become very familiar with operating and maintaining it, we will be in better position to move to the communities - depending upon interest and access. One of the most valuable aspects of this unit, we believe, is our ability to mobilize it on the highway or ice roads or barge if necessary. Members of our regional communities will now have access to quality trades training.

The College intends to advertise our programs in a manner that will, hopefully, be equally appealing to both women and men.

We would love to do more Women in Trades and Technology programs; we would love to have more women in our classes; we would love to have more female instructor in our trades area. That would be absolutely fantastic. I'd like to see industry, the Department of Education, Culture and Employment and the College working more closely together to identify apprenticeship opportunities; this seems to be a really tough area. I'd like to see us working together in many more ways. We do in some instances, the mining industry people are really good - we very work closely with them. But I'd like to see that expanded. We have a lot of initiatives underway in the oil and gas area in the Beaufort Delta especially. But if we could build further on our positive relationships and meet on a regular basis that would be a terrific and productive thing.

Thank you and I look forward to seeing your research.

Peter Kalyn
Former Training Superintendent
Diavik Diamond Mines

I am the Training Superintendent with Diavik. I have been in that position for a little over two years, I am working on my third year.

Diavik recognizes that at this point in time, by and large, we have only recruited from 50% of the community, the male half of the community. We do have some women in the admin area, but when you get into the technical and trades aspect, and into the professional, managerial field, we see lots more men. The other thing too is that we recognize that in the smaller communities, women appear to have a higher literacy level than men but for some reason they only see the mining sector as an opportunity for them in the housekeeping and clerical, cooking, domestic type of role. For some reason, they just don't see the opportunities in trades, truck driver, supervisor type of roles. We have six summer students this year, women from aboriginal communities, they were amazed they could actually go into the pit or into trades.

There are some barriers. Those who come to the site in a lot of cases have indicated to us that they love the site, great site, great recreational facilities, great place to work, but

they just didn't seem to want to leave their kids responsibilities to their spouse or grandparents, it just doesn't seem there is that kind of infrastructure in place. It's the time away from the kids, when both parents are forced to work it makes it difficult.

Work experience is important, women often don't know what to expect. For example, often they will try a job like cooking or house keeping and then discover after twelve hours on their feet that it isn't as simple as going into one room and making up one bed, you're going till 6:00 at night making beds and vacuuming cleaning washrooms. So it's like, until you try it, you just don't know what it's going to be like.

The other thing is people's image of what mining is all about, it's the steel toed boots, it outside, it's dirty and heavy. I think we could do more here, no question, to educate people. If you could find a northern professional engineer, a woman, to talk about diamonds, that would be powerful.

I lived and worked in Saskatchewan many years, in both private and public sector work and in industry, working for myself, chaired provincial committees, what I can see here is that we are small enough that if you have diamond partners that are willing to work together, it's like "How are we going to address this issue?" I think this woman thing is a good example. We have DeBeers and BHP and us, we all talk to one another because we all face the same types of issues. We are all talking to the government, to Status of Women, and we are all in this together. We are small enough, we recognize that to solve it we have to work together. We can't just say, "Oh I'm only going to just look after my company." Everything overlaps, you go to a meeting at one organization and go to another meeting at another organization and the same person is sitting there, maybe in a little different capacity, and I sense a genuine desire to address the issue and a genuine desire to want to come to a solution. I think that what you are doing is outstanding.

When it comes to distance education, a lot of the things we are doing are at the development phase. We are working with our contractor, I&D Management, who do a lot of recruitment for us. We give them access to all our CVT material, all of our safety information we will give to them. We are working with a contractor in Calgary to move all of our safety orientation on to a webpage so that people will be able to access in their communities before they come to the site.

Regarding literacy, we tend to work closely with the education co-ordinators that Aurora College has in the small communities so if people come to our place of work and do not have the essential skills to do their job, we have a learning center that will prescribe learning material for them, there is a learning center where they come from, we do an analysis of what the person is working at, we make them a 50/50 deal: we will allow you time off from work to upgrade your skills, you have to put in some of your own time.

To cover for them while they are off training, sometimes we back fill the time, sometimes we do not, sometimes we just give them the time, we recognize that in order to be successful, they require the time. We work it out individual by individual.

Turnover is still an issue. Studies have shown time and time again, if you look at any type of industry, you have the most success retaining people who live close to the workplace, they tend to stay. People like myself who are brought in, they tend to stay one, two, three years, they don't often stay long. They get their cash, they're gone somewhere else. We had that experience in Prince Albert, we brought in 40 people, in a year or two those 40 people had moved on, and we were left with just the people from Prince Albert. Those people tend to be retained much longer.

We are in the developmental stages here. We are moving towards simulators, we are participating with Aurora College towards purchasing an underground simulator, as have DeBeers and BHP. We also put in money for training women, we work with the Status of Women, we work with the College and with the Tli Cho Trades and Technical Center in Rae Edzo, we bring the students in to our shop. Aurora College has their technical and trades center in Fort Smith. We try to encourage a lot of our people to go there, but a lot of them resist because of family commitments, they just don't want to leave the community. We are looking at ways to deal with that. We are looking at ways that we can connect our learning center with their learning center as the technical capacity expands, using webcams. There is a willingness to do that, a willingness to invest. We are working at the e learning thing, definitely looking at ways to expand people's access to our site, so it's e-learning, it's on the job, it's the simulator. That we will share with our contractors. Some way that will move out to the communities, some way we will have it on site, so people can have a better idea what is involved in the operation, a better idea of what it's like to work at the site.

We are working on expanding people's knowledge of our site and of our industry and work in the north, with our focus being primarily people in the north. We'll try to emphasize the north. If we can't get people from the north, we'll have to fan out a little bit more. Clearly we know it is the people who are closest to you where the biggest bang will be, that's where the biggest potential is.

It's going to take a number of different initiatives to solve the problem. If you're looking for one magic solution, I don't know if it's there. It's going to take a variety of things, looking a lot of different communities or groups of people. From an industry perspective, one challenge is getting people interested, the other major area where we can do a much better job is retention. It's one thing to attract someone, and put them through some sort of process, whether it be pre-trades training or trades training, it's another to keep them in your organization and demonstrate to them that they are important to your organization, that they are making a contribution to the organization, and that it's a place where they might really enjoy to work. If you're just pouring the water into a bucket and there isn't a bottom to the bucket, we're going to run out of labour force here in the north. There is absolutely no question about that.

We are working for our free time, and community people are no different. They have their community traditions and customs, for example if there is funeral for an elder, they just drop what they're doing, they have to attend, and that's just the way life is.

Somehow we as an industry need to look at how we operate. We're for profit, but on the other hand I think we need to look at where are you operating, what is the environment, who are the people, what is it that is important to them and how can you mesh with them. The same thing applies to women. There's gonna be change, but let's walk before we run.

I can speak from personal experience as a Superintendent at Weyerhaeuser, we had 90 employees, and when I got there, we had two women operating one piece of equipment. I consciously made an effort in terms of recruitment to recruit women. It was a unionized situation, so we went after women who were already working for the organization in clerical roles, they were already part of the same union locals. We appealed to them to try it. It was the same thing, they thought it was too tough, they would have to handle big boxes and crates, and get dirty. We got them to say, I'll have a look. Times have changed. And we got women driving lift trucks, and operators. I'll tell ya, they cleaned up the language, they paid attention to detail, they were really good for safety because safety starts with housekeeping, everything was neat, it really influenced the behaviour of the men.

We had to tell them to cool their jets after a while because they were trying to prove they could do the job better than the men. We said, look a job's a job, it's not a competitive thing, here's what you have to do, safety's the big thing, take a look at your environment and take a look at what's happening, yes production is critical but so are you. We want you to go home in the same shape or better shape than when you came here. It was amazing. We went from almost losing our Xerox contract for North America, to being the number one producer and women played a tremendous part in that.

So we're actually working on an employment strategy at Diavik. All the things we are working on are in the development stages. We recognize that we have been drawing from only 50% of the community and we recognize that we need to take some dramatic big step to address this issue of women.

What makes pre-trades training programs for women or girls work? I would say the most critical thing is that we need to go back to the women in the communities and ask them what would change their mind to consider an opportunity in a mining sector. What is it that we would have to do to attract them and to retain them. That's where it is.

I think what you are doing may help to flush out that information, we'll continue to work together to start with them rather than with what we think is good for us.

What challenges have we had to face and how were they resolved? Women tend to see housekeeping and all that low end work as the only option in mining and they see mining in a particular way, it's dirty, cold, greasy, big equipment, physical work, but in a lot of cases that's the furthest from the truth. There is a stigma about trades, if you have a women welder, people kinda look, but if you get one or two or three, start small, and progress from there.

Day care is an issue and the isolation is an issue. Somehow we are going to have to get around those things. It's going to take all of us working together on that.

I have been in the workforce since 1966, and I have not seen opportunities in the workforce like this. If you are living in the NWT today, whatever your ambition is, that's your limit. There are all kinds of opportunities. And there is a willingness on the part of government, and industry and all kinds of organizations like yourselves to work co-operatively and make it happen. It may be in the infancy stage in some ways, but I'd say there is a bright future. If they have the opportunity for any type of training, I say, take it.

I don't think funding for women's programs is the issue. You have federal and provincial governments, you have industry itself, the worker is getting older, we know we are just drawing from a certain sector, we know we are going to need women underground, we are going to need more workers, they are going to have to come from somewhere. So we'll invest the money.

We look for educational materials that are locally produced, by local people, with local illustrations for our learning centers. Anything that is produced in the Territories or Alberta, we snap it up and bring it into our system, so there is a tremendous opportunity right there for people who produce that type of material, because it has an impact on the industry and people can relate to it.

It takes extraordinary will power to upgrade, particularly for single mothers, you got young kids, how do you do that? I know we send people to site for training, what happens when a spouse, whether it be male or female, and you're not in your room, right away they assume the worst. The site is sort of like a hotel, there's men and women there. In the community there seems to be all sorts of interaction, but there seems to be quite an amount of suspicion. That comes across.

We are going to work with our contract organizations, at one time it was kind of like "You give us the people and we will mold them to our organization". Now we are working in a more global way, it's an issue that we face in the NWT. We give our contractors access to our services to help them recruit and the person who is coming to our site has a better idea what they are going to be doing when they get here. At this point, we have a significant number of people who really don't know what they are going to be doing, they think they are coming to work on a haul truck and really what they are coming to do is sweep floors, which is a very significant difference, or they think are coming to do clerical work and then they re put on the haul truck. So we have to say, here are the expectations, you only get two weeks of holidays, you have to plan your year. So we need to do more sitting down and planning with people and say, OK, that's how you have to start to think. Now it's possible that unexpected things can happen, here's how the organization can adjust. Or sometimes people will say, this year I just can't live with two weeks holidays, I need a week over here because something is happening in my family, I need two days over here because of something else. Organizations can make those sorts of adjustments when they know in advance. It's when it's plane day and they don't show up, we right away assume the worst. We will

work with our contractors, we will deliver our core programs, we will make a lot of our service available to women so they will have a better sense of what they can expect and what we expect of them.

We're going to work with Aurora College, with the community learning centers, with the first nations governments, the Tli Cho Trades and Technical Center, we think we can do more of that type of thing, taking kids off the streets and putting them back into school, the Kimberlite Center is a good example as well, those kinds of initiatives. It seems to me, working on our apprenticeship strategy at Diavik. It seems to me that schools have made a significant change in their curriculum, they are doing more in terms of technical training, so as an industry, we have to make the adjustment. We have to change the way we look at apprenticeship. We have said in the past, we are going to go with the guy who has x number of years of experience with our organization and turn them into a trades person. We need to look at it saying "Here we have somebody in the school system, male or female, who has done well academically and has a trades interest, maybe has taken part in a Skills Canada competition." Why would you have them graduate from Grade 12 and then have them just sit there and wait. Where are they going to go? To Edmonton or Calgary, bang around there and start drinking or drugs or a combination or get married or divorced and then after six or seven years we're going to pick them up and say now you're a prime candidate to work.

Perhaps in other mines in the past there has been a reluctance to train apprentices, because the impression was that they would not stay. That is not the case today. We are sensitive to and have a desire to work with leadership in your organization. We all have a valued role to play in building capacity in the NWT, and in seeing a viable industry base and people enjoying a high quality of life.

Peter Lawlor
Dean of School of Applied Building Science
Northern Alberta Institute of Applied Technology
Edmonton, Alberta
peterl@nait.ca
780-471-7489

We offer full and part time study of con-ed type offerings, either on-line or face-to-face, or you can have a blended model. We offer certificate program training, diploma program training, degree and apprenticeship training. So a very, very broad spectrum.

We have seen a considerable increase of women enrolling in our apprenticeship programs over the past five years, to the point where in some trades areas where we had very little participation if any from women, mostly male dominated environments, we now have 30 – 50% in some cases. Our registrar probably has data about northern women attending our programs. The north has adopted the Alberta Apprenticeship model, so northerners would come to us for training through the Alberta Apprenticeship office, who really regulates and co-ordinates all that activity, they really are the government's students, so I'll have to check and see how that works for people from out of province.

We don't have anything specific to females. We offer pre-trades training for anyone who is interested in pursuing that type of discipline. So it's not specific to females. Women do very well in our training programs. The success rate is very good. We also find that there tends to be a different climate or environment when women are in the classroom, so the men behave differently when women are in the classes. They raise the benchmark for behaviour and academics. My experience is that when I had females in the class, not only the behaviour was different it also set a different tone for academia.

In academics, women do not have any different challenges than do the men, but in life outside of the classrooms, they do. Single moms, there is a challenge for them, they have little ones they need day care for them, they have got to find time to study in the evenings with those family commitments, so piled on to their study is this family thing when they're single moms. As far as support from employers, it is pretty consistent male and female so if companies are paying for tuition, books, whatever, there is no difference between males and females as far as I have seen, so if they have a male apprentice or a female apprentice, they support them the same way. The College supports women the same way too, whatever is available to the men is available to the women as well.

We have not offered women only classes that I know of because the numbers have not been there in specific disciplines. It would not work because of the nature of the operation, you would end up running much smaller classes if they were women only, and we are not funded that way, we are funded to full cohorts. It's financially not feasible, not that it couldn't be done operationally. The issue of course is that there is such a demand for training that if you ran smaller classes, you would not meet the demand for training. If you can run a class for 24 or 30 and you only run with 20 or 10 or 8, and there's other people that could be in the class but they can't because it is specific to females, then we are not being efficient in our operation in respect of delivering for business and industry. Our mandate is to train workers for business and industry, whether they are male or female.

I don't recall in my experience that I did anything differently with the females than the males when I had a blended class in apprenticeship. I found that in general, the females tended to ask more of the "why" questions and want more detail and were more detail focused, as opposed to the males who were taking things at face value. So you have to address with the female students this need they have to dig deeper. I know with my daughters there was lots of opportunity growing up for them to gain hands-on experience doing things, for both boys and girls. I don't know that this is the case now. I taught junior high and high school in the past. In all honesty, there is a high percentage of females in shop classes, unlike years ago when guys were told they were in woodworking and girls were told they were in cooking, that's not the case now.

When they come to us, both males and females, they have that on-the-job experience under their belt already, so it's not like they get less opportunity on the job site as a regular apprentice. They have to have the hours and the experience before they can go into the post secondary training. So I don't observe any lack of hands-on experience in women in our setting. It doesn't mean it isn't happening out there, but I think in our society it is less that way, at least from my experience, from the K-12 system to the post secondary system.

Females want to know "why" because they are very much interested in knowing the details as opposed to the guys who say "OK fine, that's what you tell me, that's what I believe", I found the females to be very much more interested in understanding the "why" part of it. If you don't answer them, they will let you know. If you try to brush them off, they don't want that. I think it would very much affect their learning if you did not provide that to them. I think it would be detrimental to their success.

My experience is that there are four types of learning style preferences, based on Colp's research, his research shows that whether they are male or females it is not a factor. 40% are in two groups, and another 60% are in another two groups. Everybody has a different learning style preference, and gender is not a factor. At least based on the research that I have been involved in. Although, just because they have a learning style preference does not mean they cannot learn in those other three ways. But my experience has been that female students tend to ask more "why" questions, the males ask the "what" questions. "What is on the exam, what do I need to know." Female students ask the "what" questions as well, but they also ask more "why" questions, "why is it like this instead of like that, why does it work that way", as opposed to the guys who are asking the "what" questions. Guys want to know "Just tell me what I need to know and let me go and do it". The gals want that context. It creates context for them to ask "why".

Relationships are also more important to the women than to the men. I say that with respect to knowing the differences between males and females, that is how they operate as well. That's how they are wired, genetically, and not all guys are wired that way. That doesn't mean that the male student does not need some relationship to be built as well. So in my experience, the research shows that the critical component to success in a classroom, for both males and females, at any age level, is maintaining a

relationship with them. And maintaining their dignity and those types of things. For men it is at a different level though than for women. Women I believe tend to be more emotionally charged with the curriculum and what is going on in that environment.

If you have a look at Colp's research, he talks about emotion being a factor in learning, and it can influence learning for the good, or it can influence learning in a negative way. Emotion is not being happy, it is making a connection to that material or that content or that environment. It's a relevant emotional connection, which is the context thing I mentioned earlier. They have got to have that context component, being emotionally connected to the curriculum or the environment or the material or the activity. It has to make sense for them.

Distance learning can have several faces. Distance learning can be mobile delivery, it can be done on line, it can be done through correspondence. We could address all three. Mobile delivery is taking a program that you would typically provide on site somewhere at a permanent location and pack it up and take it on the road to somewhere to a community that did not have facilities to actually deliver a program. Typically, that's not necessarily classroom based programs, it's more programs that require a shop or a lab and the communities don't have them. It can be done in a couple of different ways. You can load stuff up into a trailer, that expands out like a motor home on both sides and becomes a full functioning shop facility. You put the necessary tools and equipment in based on your training requirements for that community. It might be pipe trades in one community, it might be woodworking in another community, it might be welding in another, so you just keep changing the equipment inside the mobile trailer. Another component of mobile delivery is delivering in a community with resources from a host community or location to a facility that's available. You are shipping up the expertise and the instructors, and the curriculum materials and typically the community has a facility where training can be done.

The second is on-line delivery. That is typically the theory component, not the hands-on. It is very difficult to give them the hands-on experience over the internet. In fact it is in many cases impossible.

The third form of distance education is correspondence which again is a component of on-line delivery but it's paper based. You would ship up printed materials. How does that play into training? A limited amount of work has been done with respect to on-line. There has been quite a bit of work done with individual learning modules or ILM's. That's materials that's available in a paper based system, lots of work has been done on that. I believe that the Northwest Territories and others are actually using those materials for training.

As far as the mobile trailer, it has been used extensively in remote areas to take the training to the communities but to a limited amount with trades. There has been a lot of pre-trades stuff done but there has not been a lot of training in trades, there has been some, but not to the extent that pre-trades has been done. Pre-trades is getting people ready for entering a trade. The mobile delivery to a remote site from a host community

where the facilities are there, we just move the instructors and materials and so forth, there is some of that happening more between larger centers where there is not enough demand for a full time program to be established in one community but there is an interest and a need so if a community has strong program built, instead of rebuilding the program again, they just move the program in and out as the community needs the training.

I think that in some disciplines, on line or correspondence distance learning would work, but you have to have support systems and people in place especially since not everybody can learn on line, not everyone is disciplined enough to do it, unless you set it up to be an environment where you have to arrive at a certain time, you have to be in a class doing your work at a certain time, you do the work on-line, there is someone there to coach and guide you and mentor you, that would work. But traditionally, in its inception, online was “Oh well you are self-motivated, you can go and learn it on-line on your own”, but that is not the case with many of these folks, especially in the trades. If you set somebody from a trade in front of a screen, male or female, and ask them to read reams of pages of materials, how is that any different from giving them a book? And how long are they going to last or persist if they have to sit and read a book all day long. That is not how they are wired. They are the “how” people, they’ve got to be doing something with that knowledge, so they have to be active and applying it. You give them a bit of theory and then give them a chance to apply it in a shop or a lab as opposed to sitting and doing straight theory.

I can say that based on what I have heard, I have spoken with some of the industry people in the north, the future is very strong. There is a demand and a need now for more training. I think that some of the challenges that you face are being able to not take people out of communities. That’s a challenge. I have spoken to a couple of folks up there who have said to me “there is challenge to pulling people out of the community to go and do training”. And if they are going to do that, they would rather go to Alberta, which I found surprising. I think it’s because of what I call that “full educational experience”. When they come to Edmonton or to other communities to train, there are things for them to do other than just their studies. That is some of the feed back I have received from folks up in the north, especially in the NWT where apprentices are saying that they don’t want to go to a community where after they are finished their studies there is nothing for them to do. Now they should be focused on their studies. But students like to have, especially today, they expect to have other things available for them. I don’t know how old you are, but when I went to school there were not a lot of things available for me to do other than school work but today there is a lot of socialization that takes place, students are expecting that. If it’s not there, they will go find it.

We have programs in northwestern Alberta, trades training that we do to service that region. We looked at the statistics, there were a high percentage of students who were indentured with companies in that region who were coming to Edmonton to do their schooling. And the main reason was that they don’t get the full educational experience that they want.

If I were giving advice to someone who was planning a pre-trades training program for women, I think that as far as content is concerned to prepare them for different trades, many of them may not know what they want, so they need to have an opportunity to experiment. I tell folks you have to discover what you don't want before you can discover what you want. It's the same in life. You have to discover who you aren't before you discover who you really are. Sometimes it means they will experience things they are not interested in. The thing they need to do is know the culture in the trade they are going to go into. They need to know what is the culture like, what is the work environment like? What kinds of things can they expect to see in the culture of the trade, and not really in the trade itself. The construction sector culture, the oil sector culture, the transportation sector culture.

They need to know what their rights are, labour related and otherwise. They need to know as an employee what their rights are. For pre-trades if there's issues around academics, they'll need to bone up on the minimum requirements in order to be successful in that trade. The worst thing you could do is move someone into a trade or a discipline and not give them the minimum base of knowledge in order for them to be successful. Or they will get out there and they'll crater.

If I were putting my son or daughter through a program like that I would expect them to learn how things work with respect to the operational side of that trade or industry. So if you take a carpenter – what is it that a carpenter is expected to know about and to do on a job site? What is a plumber expected to do on a job site, and what are their roles? What is the role of someone in a senior leadership position? The leadership side, the supervisors, the workers - what are their roles, and how does that fit in with that trade? What is the big picture with respect to this sector or trade or trade area? There's lots of overlap in trades, they criss-cross each other.

They need to know the demand for the skill set that they are going to train for. Where are the areas of demand today and over the next ten years out? It's really all part of a career plan for them. They need to know if they are going into sheet metal or into welding or insulator, they need to know what the future looks like. Will they have work for a while. It is cyclical? Is it seasonal? Is it dependent on other trades? If there is a whole pile of work for pipefitters and steam fitters, the next natural growth trade, we call it the lag trade, is the insulators, they come in behind and insulate all the things the pipefitters put together. So there may be a big demand for those things right now, but at some point, those insulators are going to be needed.

You want them exposed to the kinds of tools they would need to know about and understand. They don't have to be able to operate them all, they will get that in their apprenticeship. But the hands –on experience is very helpful. What better way to find out what you like and don't like. If you're scared of the table saw but you don't know it and you don't find out until two weeks into your apprenticeship that you are afraid of the table saw, that's a problem. So they need to get exposure to the types of tools and

equipment they would see on a job site and use. What kind of environment will they be working in- indoors, outdoors, confined spaces, those kinds of things.

I am interested in seeing your report when it is done, I am always looking for information that might help us here with what we are doing.

Soumeya Movaffagh
Executive Director
Smart Communities Society
Yellowknife, NT
soumeya@looknorth.ca
867- 873- 6451

Smart Communities is a non-profit organization, we started six or seven years ago. The projects were demonstration projects of the Smart Communities with Industry Canada. We developed several projects at the government level and with other organizations to develop websites and to promote the use of ICT at different levels and have businesses and organizations use the web more. Things that are happening somewhere else in the world can be useful here but we got hit with the problem of the infrastructure that is not available in certain communities so that slowed down a bit the process of working with the Territory level. Then in Yellowknife, when the project ended, most organizations wanted to keep doing their own thing and not necessarily spend money on developing a website because they don't see that as being as necessary yet as other promoting and marketing tools.

So we decided to keep the Society running to keep awareness with the communities, we are now delivering several programs. One of them is the Computers for Schools Program, we refurbish computers donated to schools, non-profit community access sites, in Yellowknife and in the 33 communities. We also in the same program train youth or students who are completing the Computer Science certificate. We also give opportunity to high school graduates to take some experience before continuing education or deciding to go to work.

We offer through the Community Access Program access sites in 15 communities and we try to hire and train somebody for each site. This person can help people get a resume done, or research a job, or pay their bills from the community access site.

Last year we completed a proposal to Human Resources Canada to do a three year demonstration project to collect some data in ten communities, using three skill inventories: a general skill inventory, a business skill inventory, and a learning inventory. It was supposed to be in all 33 communities, but because of the late approval of the project coming in an election time last year we could not start it when it was supposed to start so we just shortened that to ten communities from the Tli Cho and the Sahtu. We have collected the data and now we are in the process of evaluating the data.

We also have a short term project with other agencies and organizations trying to promote the use of computer information technology to promote social and economic development of the communities. Those are our main activities right now.

We are trying to get together with CONNECT NWT and helping them do their work, drafting strategy and so on for the communities and supporting them.

I think the idea of delivering pre-trades training to women in outlying communities is extremely important and now that the infrastructure is finally there we have to get organized and help every organization who is doing this to get together and try to promote such training and help people to get the training that they are finally able to access.

I think there is a lot of opportunity to train. In the Community Access programs we deliver, I work with youth from the age of 15 – 30. There are young women trying to complete their education through distance education. It's a lot of struggle when there are not enough supports, or the computer crashes, they have material problems that do not need to be there. They are still facing that. But at the same time I see a lot of youth who really want to have an education and continue, especially women. I met with a few single moms from Rae Edzo and the Tli Cho communities who have two or three kids, but they still want to help others in their community. They are everywhere, they try to work and study and complete their education – they really need support and somebody encouraging them. I think that several organizations, not just one or two, need to get together and have a plan, with us providing the computers and training support people.

With the asset mapping we are doing in the Tli Cho and Sahtu, we ask a really simple question, such as “Are you able to cook for a number of people?” and people realize – “Oh this is a skill I can use to create a company, maybe I can continue studying to get better in this field that can give me a job later”, it opens a lot of doors for a lot of people so we had very positive feedback on the survey. “When I finish this I discover that I have several skills that I really did not know about and maybe I can mention them when a company is coming to town, maybe they need somebody to do this, maybe I can do it for them.”

The survey also opened some curiosity about what small skills would be needed to complete a bigger task and so encourages people who are half way there to keep on going, “I am not completely out of the running, I am already ½ way there”. With non-profits, with the uncertainty of funding coming in and having to complete certain tasks and then report to the government, it does not leave you enough time to concentrate on the real work of expansion in the communities. But if a few organizations with a similar mandate get together, working together and helping each other, the result will be there. It needs to be not just for the money but really for the social development of the community. This is the way I see it right now. Some organizations say, you are in my way, I am just going to write the proposal and do it myself. You can pay money to a consultant but you could maybe get the skills if you share and try to be more efficient so we now need to plan to work together toward that end. People were very patient to have

the broadband rolled out in their community and now they are very anxious to have training done.

Most people have the ability to use a keyboard and mouse. We had a great result among the youth using the mouse and keyboard in games. In use of software and internet surfing there is still a gap. It's good they are half way there, they know there is a computer, they know how to turn it on, and there is interest. They know something about what can be done with a computer but there is still a lack of training. Every six months you need to update your computer knowledge. The interest in technology is really high in not only computers, but phones, MP3's, but there is a lack of skills in particular things, especially skills needed for education and work in an office, such as Windows and other software we need for daily use.

We are continuing to push the ICT strategic plan that is developing with CONNECT NWT and Smart Communities. During the CONNECT NWT symposium, a lot of people mentioned that they wanted to see a structure, maybe a society, taking care of this project, having a clear administration and infrastructure, so we will be part of that for sure. So one of our priorities will be promoting and delivering programs to promote the use of the information and technology.

Re the idea of an experiment in distance education to reach out to women in communities with pre-trades training:

I think it fits perfectly, especially with the second phase of our demonstration project. The Asset Mapping was only collection of data. The second part is putting training in place, whether it's on-line distance training or face-to-face training. In communities where we determined there is a gap and the community wants to see a change and wants to see training coming to them or having training by correspondence and distance, we will go back and ask if they have decided what training they want and then help them to organize and plan to get the training going. So I think this would be perfect. We don't want to duplicate efforts, we want to work in partnerships with other organizations whose goal is adult computer literacy – computer literacy is as important now as reading or writing. I am really open to the idea, it is exactly the right time. We are preparing the proposal for the second phase of this project and we need to have partners with it. It's not possible for just one organization to do it.

We also need to be thinking about helping students to get their confidence back, a lot of people think that they can't do it, we have to keep that in mind in every step we do, we have to really encourage them. We can put tools in front of them, and maybe they don't know how to use them or they are still afraid of breaking the computer so we need to make it as easy to people as possible. We need to have a demonstration project that will generate excitement. We have access in different places, schools, band offices, community centers, so it can touch different levels of the community. Lets make use of the sites that are already there, they already have computers. Involving the people and creating the excitement is the other part. If they can see something working and it can open doors for them, then why not?

Yukon Territory

Alex Furlong
President and CEO
Yukon Federation of Labour
#102 – 106 Strickland Street
Whitehorse, Yukon, Y1A 2J5
Phone: 667-6676
Cell: 333-4033
Fax: 633-5558
afurlong@yukonfed.com

We do not at present have any training that is specific to preparing women or girls for trades or industrial training. We do have a training division that was created in July 2006. At present we have nine courses that are open to men and women. We have some courses dealing strictly with WCB and other courses with a mainstream labour education focus.

My goal is to have a wide array of courses offered both in house and through distance education. It takes a whole lot to do that both from the computer side and the financial side. We are open to exploring courses that we could offer.

Three of our courses are what I would call mainstream and open to the general public, those are the ones that deal with Worker's Compensation. One of the critical elements is that the curriculum be professionally done, which ours was.

Having the curriculum is one thing, having the necessary tools to market the program is the central piece for me. So the marketing side of things, and getting the buy-in from the populace always proves difficult, it even proves difficult in the labour movement so you have to look at different ways of bringing your courses to the public, whether that be offering the course in the day or in the evenings or on the weekends. I am not a big fan of offering courses on the weekend. I have long maintained that employers, including employers in the labour movement, really need to invest in training and education and they should be doing it on their dime. The success of any program certainly is with the people you are surrounded with and having a marketing program that makes people aware of what you are doing, what it's about, what the benefits are of taking the program, and also what the results are of not taking the program, spelling that out for them.

Our workers compensation courses are open to the general Yukon workforce, whoever wants to take them, can. The beauty of our training and education division, is that we pay for everything. We pay for your time off, we pay for all the curriculum, your books, etc. and we feed you, take care of you. We have two ½ day courses, and a 4½ day

course where we put everybody up at Sundog retreat, we pay all the expenses associated with the course. That usually gets people out, paying the full tab for everything.

With the other five courses we call our mainstream labour education, the union affiliates usually send their people to these courses, then there is minimum charge to the union. Most people who attend are union members, there is some history of the labour movement provided in those courses, but I have never turned anybody away who wanted to take the course. We know who our market audience is, who our target is. But it's on our website so if someone saw it and wanted to take the course, we would not turn them down.

The biggest challenge has been buy-in, from our own people. It's also buy-in from the business community. For us whenever we have the business community involved, whenever we offer a course, there's always these visions of sugar-plums that dance in their heads – I've said this publically so I'm not afraid to say it again – our courses are designed to be neutral, they are not labour slanted, Workers Compensation funds the system, so they had to be wide open.

The challenge is having people understand, it's that whole adult popular education thing, having them understand that education does not stop at any particular grade or in my case at university but if you don't have any post secondary you can always learn. I sit on national boards across the country where literacy is a big thing. Not so much now with the present federal government hacking away at the various funding initiatives, but trying to convince people that there's always something to learn no matter what your position or rank in the union or in the business community is. It's always an impediment for us that people feel "Oh I don't need to take that", or "I know that", but I always say if you can pick up one thing then it's been worthwhile.

The other thing is funding. We have been very fortunate, part of our mandate is to seek different funding opportunities at the federal and the territorial level, but it always makes it difficult when you have to design curriculum. We worked on our training and education division, just to give you an example, for over a year in regards to designing the division, then you have to hire staff and you have to go out and seek content and develop the curriculum and you have to test the curriculum, and so that's always a big challenge. And then having the necessary resources to market the program. It's always a challenge, it continues to be a challenge, because you're always looking for creative ways to gauge your target audience, but also others who should be taking some form of extra education.

Successful strategies include bugging people. We constantly fire out emails, especially within our own target group. We advertise in the papers. We developed a marketing plan, we have a radio campaign for so many weeks, we have the print media, and our email distribution lists that we always fire out to, anything that we can do to encourage people to take education. That's what we try to do. Really the doors are wide open.

We'll try it if it gets people in to take some of our courses. We're not a closed book about that.

It's a must to have people around you who know what they are doing. We made some mistakes. When you are designing your program, you can find the people who can write the curriculum in a professional manner, they're out there. But having the people around you who can deliver on the marketing side and who believe in your program, they're tough to come by, believe it or not.

In regards to pre-trades for women, I think it's an area that's untapped. I have been seeking out the different branches of federal and territorial level or municipal level. I am all about creating partnerships, and you need to create partnerships when you don't have your own money. That's very important, looking to the governments who have different funding streams to get money.

Our funding is a little bit convoluted, for our workers compensations courses we are funded by the Prevention Fund of the Workers Compensation Board. For everything else, we charge for each union member, through their affiliate unions, we have a per capita that's paid per member per month, we strictly go with that. We have an agreement with Economic Development that gives us some baseline funding, but really it's nothing to write home about.

We decide what programs to offer in consultation with our affiliates. Our members are my boss. I'm always speaking somewhere or travelling somewhere so I hear different things. What we do is listen and put our heads together with our team here and say "Is there an initiative that we can take to offer a course or come up with something that will meet the needs of the members"? I sit on different national boards, so I get to hear a national scope of what's being done with some of the bigger unions and the bigger Federations of Labour. For example, the Ontario Federation of Labour has 300,000 members and the BC Federation of Labour has 200,000 or 300,000. So I hear about their different components, and if I like it, I bring the idea back here. It's a different ball game because they're dealing with lots of money, where we are limited as to what we can do.

One of the key things we did at our last convention in December 2005, we put out a questionnaire. We are affiliated with the Canadian Labour Congress, we fall under the Pacific Region of the CLC. I work with them quite a bit. They have an extensive labour school that I teach at every January at Harrison Hotsprings. We look at their course offerings and try to bring some of those courses here. That's another avenue we use for tapping into education. The Yukon Employees Union usually send about ten people a year to that school. It operates over six weeks. They offer about 22 courses. We sponsor people to go to those as well. Some of those we are bringing here to our education division, they deal with union specific issues.

In 2005 we did a survey and asked the convention delegates "What do you want to see coming to the Yukon?" We took a look at all those, some were pie-in-the-sky type

suggestions, then we sat down with our executive board and said “What is it that we want to do?” We also did a strategic plan. One of the priorities of the plan was to develop a training and education division and then determine what that looked like. It was a priority for us as an executive board, we brought that to the convention, they adopted it as a priority. Then we did the questionnaire.

We offer all of our courses, except our Level 3 Workers’ Compensation courses, in our training center. We can hold up to 14 comfortably, we have anything that you need to do training. Powerpoint projectors, laptops, whiteboards, flip charts, all that stuff. We rent it out to organizations, to government departments. It’s wide open to anybody. Depending on who asks to use it we have a policy on price. If an NGO came to me I would certainly be more sympathetic to the price than if someone from government came to me to rent it. We have our own in-house training facility. For our Level 3 Workers Compensation courses, we take everything to Sundog.

Last week we went back and looked at our marketing plan. Just because you developed it and just because you offer it, doesn’t mean everyone is going to say it’s the best thing to come and do your courses. So last week we looked at our marketing structure, where was the target audience and how come we weren’t hitting some of the target audiences that we have identified. We racked our brains about what needs to be done differently, what needs to be tweaked and tuned. One of the things we will be doing is taking our education to the communities. Right now we do not have the ability to offer it online or through a distance education model. So are going to take it to what we call the three main communities, Watson, Dawson and Haines. Hopefully that will take care of the rural aspect. We will offer all of our courses at some point over the next two years. Our education cycle is two years. Our convention now is in December. So when I go to convention and speak about training and education, I want to have in my back pocket, the plan for the next two or three years. That’s what we’ve been working on.

One of the shortfalls is “How do we garner that interest in the communities with our programs?” I flew up to Dawson in July and met with some of the community people there in my circles to try to gauge the interest, I’m going to try hopefully to fly up again shortly because they have some annual general meetings and stuff.

We also have lots of literature, we have posters and brochures on the training and education division that we’ve done all in-house, because it’s certainly cheaper to do it that way. This brochure covers our CLC labour central courses and our Workers’ Comp courses. For some courses you can register on-line.

Someone wanting to do pre-trades training would not need to do much of a proposal to use our training space, I have three daughters so if I charged too much they’d kill me. So it’s just a matter of someone calling me and saying, “Look we’re offering X amount of courses, this is what it looks like for the next year, is your training center available?” We’re one of the few that have that sort of space, we have all of the equipment. We have the TV’s and the VCR’s, lap tops and video cameras, all of that. We’re open to that.

It kills me to say this, but literacy training is not part of what we do. And I sit on the national board for literacy. But when we did our strategic plan it wasn't identified as the priority. That is the document we have to be guided by, even though I sit on a national board with the CLC that talks about literacy. But with the struggles of the present government and the funding cut backs it's just making that job much more difficult. So I am concerned that even if we were to look at doing something, that the mainstream funding is not going to be available. So do we apply for it? Or do we let a smaller NGO tap into some of that funding? When we apply for funding it's really on a national level. I don't think we'd do a Yukon-based initiative, even though I've seen an ad in the paper, they were soliciting proposals, but the ceiling was up to about \$6,000 and quite frankly, \$6000 will do nothing for us.

What type of curriculum is most useful? That depends on who you speak to. If you speak to someone a little older than me, it's a textbook. If you speak to someone younger than me, a CD Rom education series. I think you have to have it all, because you have different learning styles, different literacy levels, people learn at different paces, so I think you need it all. I think you need classroom instruction, you need the capacity for people to learn by distance education, then you need a safe place to learn, so a CD Rom based thing they can do.

I recommend a lot of patience. I touched on that, I don't know if the sources of funding are drying up, but the governments are making it harder for NGO's to get into that funding. The recent Harper decisions solidify that for us. That makes it very difficult, and certainly we had to have patience for seeking out that funding, because for every proposal and money you get, you have probably had ten people tell you "Absolutely not."

So the biggest thing for me is creating partnerships. Our training and education division would not be where it is today if I did not go out and create some of the partnerships we have because quite frankly we do not have the money to do it on our own. We have limited resources, like every other organization, so having someone that understands you can't go it alone and that you have to get out there and create those types of partnerships is going to be a critical thing. Even if you apply for funding, and let's say you get \$100,000 to develop a pre-apprenticeship course for women, I would still say "Create a partnership somewhere" because you don't have the training facility to do it, so you need to create that off shoot and partnership to deliver it. So wherever you can, create partnerships and cut down on your bottom line is what you need to look at.

To link training being offered by community organizations with women in the communities, I think anybody has to see the value in what they are applying in education. You can have all the glossy posters and all the glossy flyers. What I try to do is go out – they need to hear it from me, as the head of the organization. I can say, "I've taken the course, this is why I think you should take the course". It's easy for people to sit in my chair and yeah you should take the course and have never taken the course themselves. So the hands-on promotion, and who ever is leading the project, and the

people around you that have the belief in what you are trying to do and getting out there.

For some people it's a paycheck. I try to look for people that really believe in education and training for people. If you get that, and they believe in what you are doing, you are already 80% there. Because they are always going to promote and push what you are trying to do. But you need to get out there and promote in the communities. I think you need to be visible and take it to the communities. You need to say "We are coming this week, this is what we have to offer" and then promote behind that. I think if you leave it, especially with the geography that we have, and all the outdoor activities and everything else, only people who are really dedicated will get involved.

I've done some university stuff through distance education and there's no one behind to push you. So unless you really believe and want to do it, you don't do it. I'm not a big fan, with the demands on everybody's life, and if you have kids and spouses and all those complexities that come with that, I'm not so sure I'm going to sit down at night and do an hour of distance education. Although if it was during the work day, and my employer supported it, or it was during the work week and you're out there and you've marketed that, it might work better. I know distance education is a big thing elsewhere but not really in the Yukon. I probably would cancel a course and throw it out if employers did not support their employees going through it during the day time, because we ask enough.

I'll give you an example in the labour movement, a lot of the stuff they do at the local level, a lot of it is volunteer. So if you are a shop steward in your worksite, it's all volunteer. One of the bad things we've done historically in the labour movement is that we've always asked people to do more and then when we figure you can handle that, we ask you to do some more, and we ask you to do some more, and the next thing these people leave, they burn out. So I'm not a big fan of infringing on people's down time to do work for us.

I use the same principal to employers. I say, "You want your employees to learn, you want them to have opportunities for education, send them to training during work hours. I'm sure you can do without them for a day or four days. So our courses we don't offer on the weekend. Because it's trouble getting people. But you offer it during the workday, depends on what organization they work for, they just may.

One of the things we learned is that it does not get done overnight. You know what the finished product looks like, you have that in your mind, and you're so eager, but there's just so much work to get there. Really understanding that it takes a long time from the initial concept of "This is what we want to do, we want to do some pre-trades training for women in carpentry or electrical" and having the ability to tap into some of that curriculum either through the College or whatever, 'cause I'm not saying the College is the most effective way. It could be offered cheaper and more effectively other ways, so having the ability to tap into that, but understanding that if you are developing

something, it's a long road before you actually get a warm body in the seat to listen to an instructor.

The other thing that we did is we pay our instructors. You know lots of organizations figure it's great career development that you can go do a train-the-trainer. We did that, on two occasions we spent a lot of money, probably in total \$65,000, we put ten people through our train-the-trainers, and that worked for about a year. And people's lives changed, their commitments changed, so I just hired a training and education advisor because I need to be guaranteed that course is going. That's one of the mistakes we made, I'll never do it again. I will hire the staff up front. You are a training and education advisor, and you will be delivering courses, and we'll get you the stuff to work with us, that's going to be your job and you're on the payroll.

It was just too complicated before. We put people on a contract, we trained them all, six out of ten of them had prior adult education experience, within the labour movement and not within the labour movement, but one got pregnant, another one left the organization and moved away, so you start with ten, and then you get eight, then you're down to six and five so I saw where this was going and I said "no". So I disbanded the education roster and hired people.

Rome wasn't built in a day, and I don't know what the time frames are for this, but this type of program, there's always going to be pre-trades stuff, so take your time and do it right rather than rushing because there may be a pocket of money here. Because of the requirements from an accounting point of view, and you're being looked at to deliver a program with other people's money, if you don't do it right, you ain't getting' any more. You don't want to alienate yourself from that organization, they may have more money and they may not. So taking the time to do it right, and doing what you're doing, the research and a gap analysis as to what's out there and what needs to be out there and how do you fill in the middle.

One of the things we are doing right now that I can't say a lot about, but we are looking at a program around young workers. One of the things we're doing is looking at what the Department of Education has then doing a gap analysis to say "This is what we want to do and this is what they have, what's the middle look like, what's the program look like".

Creating the partnerships I can't stress enough. You can probably sense I've had some grief, about putting the right people around you, because my job is to envision what we want as an organization, go out and seek the partnerships, then say to our staff here "OK, this is the team we need to deliver this". Having the people around you that believe in what you are doing, whether they are in the labour movement or not, believe in the principles of adult education, believe that there are different learning styles and different learning needs and all that stuff, to me that is the biggest thing. You can't be everywhere at the same time.

With my demands I'm on the road every month, so I really need to be able to trust that the people we have are delivering things for us in a way that's not going to annoy a whole lot of other people and get people to take our courses. So the people around you are key. And when it comes to education, it doesn't hurt to be very passionate about it. If someone was looking just to develop something then I'd say don't waste your time because it will fail. If everybody in your organization is not behind it, it will fail. And it doesn't look good for your organization. It especially doesn't look good for who ever is at the top.

Having the right people around you - there is not enough money that can buy that. And I speak from experience. You think you have good people then it goes off the rails. We had to build the infrastructure from the ground up for a training and education division, we didn't have training, we didn't have the marketing materials, so something as simple as having pamphlets for your courses. You've got to think of everything. We had to build it from the ground up, we had to build it from the concept of what we had for adult education, we had to build the curriculum for three out of five courses, then we had to do the logistical stuff, the infrastructure stuff, then we had to do the marketing and that all took us well over a year. And we still tweak and turn, we still learn.

And a big thing too is not being afraid to listen to suggestions from those who have walked in your shoes and have failed at times.

Allan Doherty
Exploration Geologist
President – Aurum Geological Consultants Inc.
106A Granite Road
Whitehorse, Yukon, Y1A 2V9
Phone: 667-4168
Fax: 668-2021
aurum@yknet.ca

I am an exploration geologist with a consulting company here in Whitehorse, in business for 25 years, basically doing mineral exploration. I commonly hire women. There is no issue there really. I actually find that women do a better job, or are more meticulous about the work than men are. This summer I had three women working for me, 40% - 50% of my employees are women.

In terms of training, I don't specifically do any training in my business, if I have an employee who is really good at something I might send them to some specialized courses. I run a basic prospecting course at the Chamber of Mines, we have seen a big upturn in people wanting to do the course this year, I think primarily because of the big upswing in the exploration sector. This summer I think there were five women out of 16 in the course.

We have done a number of courses. In '04 we ran a course in Haines Junction, Whitehorse, Dawson and Ross River. We had about 80 people registered in the course, and I think about 22 people completed the whole course, and about eight or ten of those actually ended up working in the industry. One young lady took the course, then decided to go to university and take geology as a result, she's been working all this summer for Strata Gold, I believe.

People can enter the course with nothing more than a general interest. The initial course is fairly basic, we're just trying to provide people with some of the skills and attributes they would need to work in the sector.

Right now it has slowed down a bit because everyone is so busy, no one has the time for anything, so it's hard to get anyone to step up to the table right now because everyone is so busy.

I am involved with the Yukon Mine Training Association. In the Yukon we have done mine training before, we are actually ramping up fairly big time right now because there is a huge demand. I know there are some women from the Taku River Tlingit that will be sent down to Williams Lake shortly to do a Heavy Equipment course so they can obtain work with Golden Hill or Ledcore on the Adanac Molly property. Some of the larger construction companies actually prefer hiring women because they are easier on the equipment, which is not surprising, actually.

We do a fair bit of training in the Yukon. I know through the Mine Training Association, we did a line cutting course with Northern Freegold north of Carmacks, they employed a lot of members from the Carmacks Selkirk First Nation. We did Emergency Boating Training for people working on the barges at the Minto Coppermine, and some basic training there, also one company in Dawson did an exploration safety training course this spring, and I think there's also a project with the Ross River Dene on mine reclamation work. There will be more things coming along over the next two months.

The Yukon Mine Training Association has been set up in a joint partnership between the mining industry sector and First Nations to look specifically at training people to get entry-level jobs in the mining sector. We are projecting a huge number of jobs, we're talking thousands over the next two or three years, if things continue the way they are and there's a huge shortage of staff right across the board. The mining sector thinks it's probably better to hire people locally in the communities where possible. It seems now at most of the mine site projects, you work on a three in, two out rotation basis, so if you can hire people locally, it's just a lot easier, you don't have the additional expense for travel costs of people coming in and out, plus it provides jobs to the communities.

But the big issue is finding people with the appropriate skills so what we're aiming to do is trying to train people to get them into entry level positions and then retain them and advance them in the workforce.

One of the biggest challenges is the general overall lack of elementary skills in the community, life skills, how many people have a GED, that's one big issue. We don't do any upgrading specifically. We would in most cases be looking at hands-on training, where people get on the job and get into a position where they get some training. I know we have looked at developing a wage subsidy to support employers who want to train people and need some assistance in wage costs, it just helps.

We're hoping to do primarily on-site training, we'll probably do some training that is community based, but the sentiment among industry people seems to be that it would be best if you can get people actually on the job and get on-site training. That's kind of standard in the industry because the job functions in the sector are somewhat unique, so it's best to train people right on site with the appropriate people who know the business.

As far as I know, there are no specific plans for training targeted for women. Women are involved in the training, there is a fair percentage of women hired in this sector, but as far as I know there is no specific training that is directed at women.

My advice is to recognize that there are jobs in the sector, every thing from surveyors, geological assistants, office staff, heavy equipment operators, and I really don't think there is any bias on the part of industry that would discriminate against women at all. It has been proven that women who work as equipment operators have a lower breakdown rate and their maintenance costs on the machinery is better. I think that a lot of the people in the industry recognize that, so they are not at all adverse to hiring women. I think the opportunity is there: if women are interested in getting involved, just go for it.

For YMT, we are getting funding from the Workers' Compensation Board, which will be directed primarily at safety, and we've also got funding from the Northern Strategy, \$1 million for training, and then another million dollar funding agreement from the Targeted Investment Program, which is Federal government money. We have also put in an application to the Aboriginal Self Employment Program for a pretty substantial amount of money. We haven't actually got a funding agreement from them yet but we're hopeful that they will come through with some funding.

What we like to see with the Yukon Mine Training Association is training applications coming in from company and first nation joint ventures. We have not done a lot of advertising but we've starting producing quarterly newsletters, which go out to an email list, and we will probably be doing advertising in the paper, but because most of the training courses are developed through an application to the Mine Training Association from company / first nation partnerships, they are not necessarily advertised. Having said that, I think we will still possibly be offering some programs that will be advertised just for general interest application.

We have course material that has been developed for the basic and advanced prospecting course, but it's not readily available outside of attendees at the course. I do

not know of any distance education happening or planned in our sector right now. A lot of our training tends to be on-site. I'd say it's pretty hard to train people for positions in our sector on an on-line or correspondence school basis. Generally what we like to see is if you are right on-site you can get first hand experience with equipment.

Most students are generally not enrolled in trades programs. We have two mines up and operating now, and both of those companies have worked with the communities to try and hire local members of the community, but one of the biggest hurdles is trying to find people who have the basic minimum standards required to do any type of job and I think the success rate has been not great. We recognize that there have to be some life skill training programs, so our goals are lofty but I have questioned a number of times whether there are people out there that are ready to be trained? As far as I am concerned, that is a huge question.

So we'll see where it goes. We will have additional mines opening in the Keno area and another mine out at Carmacks, Atlin possibly, possibly Wolverine south of Ross River, so there's potential demand for a huge number of employees. If we can hire the people locally, that's better, for sure.

Cantung, and Sherwood Minto Copper mine are operating now, and Western Copper is probably coming along in another two years, and Keno Hill will probably re-open in about another two years. I know that Adanac Molly is looking at possibly developing their deposit over the next year, we'll see where that goes, then who knows what else might come out of the woodwork? Cantung is in the Northwest Territories but access and everything is through the Yukon. So it is over the border in the NWT, but it is basically manned primarily by Yukoners, everything runs through Whitehorse, other than their permitting requirements, everything else is through the Yukon.

Sherwood Copper had a mill employee training program, plus a program in barge safety for people operating the barge. I don't believe there has been any training at Cantung that has been funded through the Yukon Mine Training Association.

Any training developed for the sector needs to be hands-on training that happens right at the work site. I know that Yukon College has offered things like WHMIS, and first aid and rigging and hoisting and what not in the communities. I think if you went and surveyed the communities, you'd find that the College has already done all of those courses. They have not really resulted in any employment but they're part of the building block. I really think there has to be a new focus where training is more on-site, it's more directed by industry in terms of what kind of training and what emphasis they want. Across the board there is a huge labour market shortage right now, across the country, in all sectors, so everybody is going to be competing for people. Any training that gets done from here on needs to be focused, specific, and probably on-the-job. I don't think you are really going to gain a lot by in-class academic or other courses, I think it has to be on-site.

We've still got all the other professions that are employed in the mining sector for which often you have to have a university degree but that's all in place, you really don't need to do anything there. I think there's a whole other sector, the trades, technology, the general labour market, where a lot of training can be done on-site and I think you're going to see a lot more training that is focused and directed in partnership between industry and training institutions so that training specifically addresses the required needs. We have put a lot of people in this country through university that have ended up as waiters and waitresses with a Bachelor in Arts, it's kind of crazy.

There was show on CBC recently talking about this whole training and job shortage, and they were suggesting that we are going to see a major paradigm shift in how education is delivered. I think we're seeing it happen already, industry is really stepping forward saying "We're not totally happy with what's happening right now, we want to be more involved, we want to get training that's more focused and directed at the job requirements and part of that is having training on-site with the equipment. That's always been a feature of the mining sector, we talk about the on-the-job training or mentoring with experienced employees, people experienced in the sector in the industry train new people as they come in. They get training on the job site.

The other things is that there are very few non-skilled jobs out there anymore, every job requires a moderate to good literacy level and some computer skills, there just aren't a lot of pick and hammer, shovel jobs left. We're constantly looking for skilled people and there's still a big huge gap.

Literacy and computer skills are an issue with everybody. Yukon Learn ran a program about ten years ago now in literacy training. At the time I was involved with Yukon Learn, and I suggested we try some literacy training in the mining sector, unfortunately, just as we started the mining industry had a big crash, but we still did it. It's goal was to try and get people up to the GED level so they could go on to do other things. That is an issue in the communities, no two ways about it. That and the life skills issue, trying to find employees who will show up to work daily, on time. I think success breeds success, if you can get people working in the sector, making good money, they become an example for other people in the communities and things move that way.

When people are training on-site, they are paid a wage. I know with the recent application we put into ASEP, we also indentified a block of money for wage subsidies, so the mine Training Association could subsidize employers for training wages, to a certain level, to assist the companies to get people in the programs to do the training.

I think that the industry is looking for employees that have the basic required skills and a willingness and a commitment to work and learn. There are incredible opportunities out there for anybody that wants to get onto the field. Literacy, numeracy, life skills. That's the baseline for most jobs. There are not a lot of manual labour jobs left in the sector, everybody's got to have a certain level of literacy and numeracy skills to be able to compete in any job. That's the way it is right now. Everybody seems to have a technological gadget in their hands, computer or GPS or whatever. There's huge

opportunity for anybody who wants to get involved in the mining and exploration sector and there's blue skies, you can go anywhere you want, really. And it tends to be one of the best paying sectors around, even low skilled jobs get paid good money. The industry recognizes that there is a fairly large base of unemployed people in the communities, and as far as the industry is concerned they would rather hire people locally in the communities than bring people in. But the barrier still lies with the basic skill level. Think that if the communities as a whole and the various sectors work together we could maybe make a difference, make things happen.

I don't see the male/female thing as an issue at all. I have been regularly hiring lots of women for the last 25 years and I find that women tend to be better employees, I think you would hear that from a lot of employers. In most cases, they're more reliable, they're better on the equipment, they are a little more meticulous, and any employer who discriminates against women doesn't really understand what's going on. They are totally as competent as men, and tend to be just as good or better employees.

Anton Solomon
Team Leader for the Community Services Unit
Services Canada for the Yukon
(HRSDC)
Phone: 667-5083 Ext. #233
Fax: 668-6801
anton.solomon@servicecanada.gc.ca

We fund virtually 100% of the apprenticeship program in the Yukon. We don't administer it directly, the Territorial Government does that, but we are funding it. There's no restriction to women or girls, but there is nothing specifically targeting them either, not in the apprenticeship program. There are some projects at the Yukon College which are eligible for funding that are targeted towards women, women in trades for example, but for the most part we fund the curriculum to an individual, regardless of gender, we do not have a specific program, per gender, at least not at this time. There have been times in the past when there have been short term offerings that have been made to either attract or introduce women to trades, but they were not long term projects, they were short term, one shot projects. There has not been one for a couple of years.

The College has been part of them, but usually the way it works is that either an organization attached to the College or an off shoot of it like Women in Trades for instance will come to us and say "We want to have a two day seminar to introduce women to trades, will you fund it?" And depending on how they structure it, either we can or we can't, because Service Canada is a service for all Canadians, we don't get to say "If you are of this gender you don't get to participate in this program". That works for good or for ill both ways. So we generally offer our programming as an offering to an

individual to improve their skill sets and it's their choice, they built the action plan. We don't purchase seats any more like we used to do before 1996.

To qualify for that funding, for the most part, they are they are attached to Employment Insurance in some fashion, the Territorial Government requirement for an apprentice is that they are indentured to an employer. Our part of it is that they have qualified as a mature participant under the Act, which means they are either on an EI claim now, as an apprentice they file for EI when they go to school, or they have been on a claim in the past three year period. We have some funding, although it's quite a bit more limited, for people who qualify as youth and for people who have a declared disability. But that funding pot is limited, and it's not restricted to trades. It's for anything that leads to employment.

We are looking at trying to find ways to address the general labour shortage and the trades shortage, we are involved in an activity with the Chamber of Commerce to come up with strategies for the community to get more available workers to employers because they are short of everybody in every field. If you have tried to work on a house in the Yukon you know how hard it is to get trades to show up paint something or build something.

So we are involved that way, we are not involved specifically in how to get more women into trades. We tend to be an equal opportunity funder. Very few organizations recently have come to us lately with an agenda-specific program, because they know we have to be careful with that as a federal service. To be eligible, it has to be a certified trade, an apprenticeship program. For any other position for employment, we have to be able to demonstrate that there is likelihood of a job, which in this market is a lot easier than it was five years ago. If you want to be a left-handed caterpillar picker, we won't touch it. If there's a job in it, we can look at it. But the apprentice program is for specific certified trades.

We invest a lot in the community to case manage clients through interventions. What we generally look for is the attachment to employment. Everything we do, all of our legislation is based on employment outcome. While education is very good, we don't fund education, we fund the result – employment. So when the client is finished with any intervention, we track employment at the end of it, how long it takes to get employment at the end of it, if they are employed in what they trained in. What works and what doesn't for us means "Did you get the job or did you return to school?" In the case of youth, we aren't necessarily looking for employment, if they go back to school that's considered a success as well. Youth is 15 – 30 under federal criteria. For the apprentice program there is no age requirement, so long as they are attached to an employer.

The apprentice program is fairly well established, in terms of how it works, they are all client driven, so mistakes on the application are generally borne by the client. If they make a mistake, then they wait longer for their funding. But because we don't assess, we don't have a real role to play in terms of whether they should have been sent to that course or to some other one. That's up to the Yukon College. For skill development

clients, generally they are going to formal training. So we are not talking about clients with literacy issues or anything like that, they are applying for and ready to take courses so we consider them to be high functioning clients.

The biggest issues are having enough money to fund everybody who wants to go to school and differentiate for the client that we are funding education versus we're funding employment. It's difficult to explain to someone for example why when there is a nursing shortage that we can't find nursing school because that's degree education, so under the Act we can't touch it. Those kinds of things are issues. But for the most part, if a client is ready, and looking for work and lack skills, we don't have any problem funding them. If we have the money, we'll do it.

When we pay for training, it's formal training, it's going to school. If an employer is looking to hire someone and train them on-the-job, that's a different program, the wage subsidy program. We pay a portion of the wage. The employer bears all the cost of training the individual. We pay part of their wage to help offset the start-up costs. That is targeted at individuals who otherwise would not get that job because they can't qualify with their skills sets. It's an option for people who are unprepared for or unwilling to go back to formal training. When we say it's targeted, we mean that, we are looking at a specific individual for that job.

A classic example as it applies to women is a woman who has left the workforce, with a skill set that requires technology knowledge, and left the workforce to raise a family then when they return, and their skills sets are still good but they don't know what version of Excel to use. Rather than send them to computer training, we would rather send them to an employer who will just bring them up to speed with the software and then pay them for that opportunity. But we don't define that as training, that's a wage subsidy. Training for us is going to Yukon College to get a certificate in something.

For a wage subsidy, we have to have the application from the employer, that's who our agreement is with, but we assess on the basis of the needs of the individual. So they are applying to us for money that goes to the organization, but we decide whether or not to give it to them on the basis of whether or not the individual is going to gain something from it. So it means that most employers have to do more than they would rather do to manage that client. Sometime we get someone who is just looking for 60% of a salary, we have to suss that out, and that can be complex. It does result in not very much uptake on the program, when small employers, which is most of our market, are required to do paperwork to hire somebody when they could just hire somebody. Five years ago when it was an employer's market they wouldn't bother. And now, when they don't have enough staff, they're too busy. So with targeted wage subsidy, it has to be just the right environment to make it work. We have three clients in the Yukon on targeted wage subsidies this fiscal year. It's not a whole lot of people, even in the Yukon. So it's problematic when the employer does the applying but it's the client benefit we assess on, so it's kind of paradoxical. It does work when it works, but it's not always an easy thing.

All of the trades are in demand. This year we have registered 133 apprentices. Most of what I am seeing is carpentry, pipe trades, mechanical trades, electricians, other construction trades. I am not seeing a lot of boiler mechanics, auto mechanics, heavy equipment operators.

My advice it to tie training into the regular apprenticeship program wherever you can, because that's still the standard in terms of getting employed. The pre-trades offerings that they have up here – they take the pre-trades course then they challenge the first year apprenticeship exam, that tie in is really valuable. We have had problems funding other types of programs because at the end of training, they were no further along the continuum. So we could not make the argument that this was improving their chances for employment, they still had to go to first year apprenticeship to get employment. This did not have to have the trades qualifier to do that, they could go straight into it if they wanted to. So we could not make the case that it was a necessary fund to get employment. So for us as a funder, tying it into the apprentice program would make it more possible for us to be involved as a funder, which means there is less money available for the client.

I have less understanding of the use of a trades familiarization course for employment. I could see it for individual interest, but “Lets put you in the shop and see if you like it” is difficult to make a connection to employment. That might be a valuable course, but I don't think it's quite pre-trades. The people in it do not have to be going into trades, there is no real requirement attached to it.

Anything that gets a person attached to the possibility of “this much education = this much employment” is not a bad thing. Especially in this environment, you are desperate for anybody with two legs and a heart beat.

Most of our trades funding comes out of the EI Act. A very small portion comes out of consolidated revenue funds (CRF) which is general revenue that the government has earmarked for a program. The good thing about the EI fund is that it is employers paying for it. So there is a better buy-in for “This program will get you staff”, when there is this type of market. When it is the other way around, when there is high unemployment, employers tend to resent the fact that they are paying for programs for someone who has left their service.

The CRF dollars tend to be a lot smaller pots and then tend to be targeted at higher needs clients. In this jurisdiction they are commonly known as the Opportunities Fund for People with Disabilities and the Youth Employment Strategy Fund. Their total of their budget is about ¼ of everything else we get. And although the number of clients in the youth and Opportunities fund are less, they are invariably higher needs clients. Disability or high school non-completion, all of the risk factors that youth at risk face. So arguably we have less money to deal with a much larger problem.

But most people still consider us Employment Insurance, even though we haven't processed insurance here in several months and my side of the shop has never dealt

with insurance, other than as a qualifier. But they still think of it as “Employers are paying for it, this is part of my premiums”, they think it as an investment rather than as insurance.

It's rare that there would be more people applying for funding than is available, because we really are targeting a not very large percentage of the unemployed, and right now, the unemployed section of the population is quite small. Even at 10%, it's only one person in ten that may apply and maybe 60% of those will actually apply and of those, most are fundable. We actually had direction at one time, although not any more, that if the only reason why you are turning someone down is that you don't have enough budget, it is not a sufficient reason to turn somebody down. It's time to ask around to other regions to see if somebody has freed up money that they can give you. So our criteria for funding is that if the action plan is sound, fine we will fund it. Once they have gone through being case managed and developing an action plan, it's a fairly solid lock on why the funding is there, a very good case is made and we proceed. Very few people who have EI insurance apply and can't access it. But there is a significant portion of the population that does not have an EI attachment, and we can do nothing for them unless they are youth or disabled.

Case management depends on the client. Sometimes it's as simple as “Your resume sucks, lets fix that”. Sometimes it's serious counselling to figure out what the actual barrier to employment really is. Our criteria for case management is identifying a barrier or barriers to employment and developing strategies to address those barriers. They are individual barriers to employment, so if the labour market is not good, there is nothing the case manager can do about that. But someone who has had a skill set that was good for the labour market but all the mines have shut down for example, which happened up here in '97, they can make a case for re-training because their skills sets are now obsolete in the labour market. But they generally take a reasonable amount of time to develop. We try to avoid someone who is panicking because their EI is running out and going to school because there is money involved. Those clients end up going to school, failing class and now having no EI attachment and now having no more money and still having no job.

So case management is really the mortar in the wall, as it were. Without it, somebody may succeed, but it will be luck or their own ability that allows them to do that and nothing that we have done, we just happened to be there with money. We try to be as specific as we can when we design an intervention for a client. Sometimes it needs funding and sometimes it's just a matter of directing them to a service we're already funding such as helping them with a resume and they're done. Or sit down and teach them how to interview or tell them how to look for work.

As a rule we are not involved in the promotion or advertisement of the Apprenticeship program. We contribute information to the Yukon Government to give clients when they apply about how it's done. But again because we don't control the assessment, we leave that in the hands of YG as a rule, we are basically a third party funder, it is YG's program to run.

English literacy is an issue with regards to adult programming. It's an issue in terms of connecting people to employment. In any employment stat, the bottom third are chronically unemployed, as a rule, whether that unemployment rate is 10% or 2%. There is a portion that are chronically unemployed and have multiple barriers. When you get this market, when the unemployment rate is so low, more and more have multiple barriers to employment, and almost of those are associated with literacy, employability skills, life skills, disabilities, inability to attach to the labour market or social difficulties or justice issues, all that stuff is what we are dealing with now and very few of our programs have the scope of time or the expertise to deal with those barriers. Some are unable to read for example. And if they can't read the form, we can't even legally make an agreement with them because they can't understand the agreement. They just got guardianship legislation recently in the Yukon Territory, so a lot of people who are disabled, who were unable to apply for programs because it could not be verified that they understood what they were applying for, can now apply.

Certainly someone with literacy issues is going to have a hard time with formal training, they will have at least a difficult time in the employment market, particularly if they are doing tourism, which is one of our biggest markets, and an impossible time in business which is 40% of our market, and in government. So it certainly is a barrier. And more of a barrier for more of our clients, now that we're in an environment where they think that they can get anything where people are hiring. As a funder, our solutions as a funder tend to be limited. As an example, our programming under Youth that allows us to address employability skills makes the maximum intervention length 24 weeks. If you are dealing with someone with multiple barriers and an unstable home life and justice issues, 24 weeks is barely going to touch the surface for them. But it's the most we can do. That kind of limitation is set by a cultural standard in Ottawa that is difficult to deal with.

There are organizations out there that have the wherewithal to deliver those programs. Right now one of our biggest challenges is getting the case management networks working with the non-profits that deal with us. Lobbying levels of government to provide more of those services because this is the client you are dealing with.

The pre-trades programs address those issues to a certain extent. One of the things we did get involved with in Carcross, and had more people making proposals based on this model, was trades-specific employability skills in that they would do math in the morning, they would apply that math to the job site in the afternoon. That works really well for individuals who do have the grasp, but just don't have the ability to grasp it by reading, they need the hands-on. People who are attracted to trades tend to be that sort of individuals. So understanding that, and having the methodology for training to address what is good for the client, not what is easiest for the teacher is a shift that has been a long time in coming and long overdue in terms of general education, the trades are leading the way in this. There is an intuitive understanding of that fact in trades that isn't in business, it isn't in government, it certainly isn't in things like the medical profession. We funded a portion of that, the Yukon College was involved, the First

Nation was involved with it at Carcross. Not 100% successful, they still have the other barriers these clients face. Sometimes the most important success measure is that they finished the course. Not that they passed it, but that they actually stick it out, they actually engage in the course.

Very often it's five or ten interventions with a client before the client gets what they need. One of our youth providers said "We allow our clients to fail and learn by that failure", rather than "If you can't do this you are turfed", which is sort of the "Monday to Friday, 9:00 to 5:00" model that we have. For most employers, it's "You don't show up, I'm firing you and find somebody else". It's harder for employers to do now that there's fewer workers. Again, if we're going to address those issues, this is the market to do it in, because employers need people and we are certainly not short of unemployed workers, that figure has not changed. So having employers that are willing to take the hit because we are funding them or because someone else is providing the support, and develop different methods to get them into construction because they need the employee and getting them to have a stake in that is sort of where our focus is now.

Trades have been marketed to women more aggressively in the last five years than it was when I first started with Service Canada. I started programs in '99. The Women Exploring Trades and Technology program was first proposed to us in 2001. The almost immediate response the first time it came to us was "It's gender specific, we can't touch it". That did not stop the program from occurring, which is great. And certainly we have had more individuals women clients being funded to trades-related programs, pre-carpentry in particular in the last few years, but it's not a large percentage. Our apprentices are still by far and away mostly men. We're hearing about it but we're not actually seeing a lot of shifting in terms of different program offerings or different methodology of training. But we're not seeing a massive shake-up in terms of "Oh my God no one thought of this". It's been kind of creeping in and trickling in. The phrase "non-traditional" is becoming like "Dime to paradigm" was in the '70's. It's becoming a not-new phrase. It's becoming a standard phrase now but it's still not anywhere near a huge fraction of new trades people, it's mostly men.

I'd like to see a bit more work done as to why women are not there. There was a time when HRDC was actually fighting a lawsuit, which it won. Somebody in Ontario had made the case that EI programs were discriminatory to women, visible minorities, people with disabilities, First Nations. The reason they did that was because the qualifying criteria was that you had to have an attached to employment, and those were the under-represented groups in employment and therefore discriminatory. Of course it was beat down because there was no requirement that said you had to be black, white or any other colour, that was keeping you from doing it, it simply gave the statistical knowledge around the fiscal reality that fewer of them had jobs.

There don't seem to be any strong indicators of why women are not in trades, other than the social and cultural patterns, and because all of our stuff is focused on "any individual can get these skills for employment if they want them". There is little role for us to play as a funder. It would be nice to see something in the labour market that could

tell us why, so we would know what to offer. We did get some people saying “Well if you offered day care...” well we already do. Day care is an eligible cost, for either gender. There are questions about transportation. If an individual is unable to go to college because they lack Grade 12, we can include that as part of an action plan for up to three years for any individual.

So we're addressing those issues, but we have no way to address the question of “why are less women applying for trades or even computer-based occupations.” And until someone says “If you do this in funding” we don't have a way to generate it. And we don't have enough women telling us “If you had given me this I would have done it sooner” either. Because by the time they get to the point where we are funding them, they are doing it. It's an interesting point – what do you offer when you don't know why they are not taking available courses in the first place? We can fund research. Individuals can come to us and say “We want to know why”. We initially funded a two day seminar about trades. But it still doesn't address “Why don't women come to the seminar?”

We do fund some distance learning, but again, we fund the individual. Less for pre-trades at this point. What we fund depends on what training institutions offer. So if an institution offers some alternative distance learning, we will consider it. One of the things that gets us in a little bit of hot water with our funding criteria is that we fund so the client is not required to seek employment while they do their search to support themselves because the reason we fund them is that they can't find employment. So we fund them so they won't starve while they are going to school, essentially. We want them to finish their training as quickly as possible, so they are employed as quickly as possible.

When they do distance learning, most colleges set that up on your own time, at your own pace so people can take the course while they are working. So of course it's targeted at people who are already employed. We have to take extra steps to make sure that what we are funding, especially if we are giving someone living support, is that they are actively, full time, in the training, even though they are never at school. So we have to come up other ways to deal with attendance issues because there is no attendance by getting the work done on time. We can do it, it's not difficult, it's just an extra step that we take. We don't discourage people to take distance training if that is the best way to meet their goals, in fact it's generally cheaper. Most of our people we end up sending them outside, or we send them from the communities into Whitehorse. The community campuses do pre-trades qualifiers sometimes, but mostly the main campuses offer apprenticeships. So we support it as much as we can. The bottom line is that if the College is offering it here, there's no point in sending them outside. We see more distance education now because the College is doing more, and the College is the only game in town in the Yukon. When I first started working here, it was a suspect action plan that came in with distance learning. Now it's not quite a standard, but it's not rare. We have a lot of applications that that is where they would like to be. And looking at the differences in what it costs per client, we like to do it too if possible. Certainly the Yukon College as a mandate is pushing distance ed where they can because it's a way they can offer more to the communities.

An apprentice is going mostly to Whitehorse or Alberta. The Territorial Government decides where they will send clients and what is offered here is not necessarily Level 3 or Level 4 which is offered at NAIT or SAIT. The vast majority of our clients – about 50/50 – are going to the Yukon and outside, and of the people who go outside, they are almost 50/50 between NAIT and SAIT. Some go to Red Deer College, some might go to MBTI for computers. One or two go to BC. But BC's trade certification is a different structure and it's more expensive so they send them to Alberta because it's cheaper.

I sit on a couple of committees that help Yukon College plan its courses. My role on those committees is usually "What impact will your training choices have on our ability to fund a client to that training?" If you want us to be involved as a funder for whatever program you set up, tell us what it is as it develops, because we might be able to find things that will hook a client that won't make us be able to fund it, while it is still in the planning stage rather than when you have invested and implemented it. Then we have to say no, it's too late. Again, in this market, probably not so important, but the market always cycles and when we get to the end of this boom, we'll suddenly have a bunch of people that need training. It's far and away the biggest intervention that we do. Which is not really surprising, but it's sometimes frustrating when you have the colourful 3% that can't get work and can't get to school. But by far and away, our biggest contribution to anybody's training is what we pay the client to go to that training. And how they are eligible for that. So the earlier we know what is coming together as a choice for how it is going to be run - if it is going to be attached to a college, or if it is going to be attached to an employer, how that works, who's involved, the quicker we can tell you the impact to or program. We've had a couple of programs get set up knowing that our clients could not be funded to it but also knowing that our clients would be a small percentage of the market targeted. So if it is not important, fair enough. But if this is who you are targeting, then get us in early just so we can say "This is what we can do". Not to say anything about "Should you do it that way" because we are not trainers or educators, not officially, although we have seen a lot of training so we do have a fairly good handle on what seems to work and what doesn't, but we're not trainers.

Betty Irwin
Program Co-Ordinator
Yukon Women in Trades
Box 191-108 Elliott Street
Whitehorse, Yukon
Y1A 6C4
Phone: 667-4441
Fax: 633-5689
betty@yukonwitt.org

The program that we started two years ago, Women in Trades and Technology, through the College, is a 16 week, full time course for women to explore five or six different trades in a hands-on format, and also to get information about the workplace and about trades. The outcome is that when they finish, they will have an idea if they want to go into the trades and also what trade will interest them. Two years ago, this was a pilot program that was started here in the Yukon. You could say it is a pre-pre-employment training program.

I am the program co-ordinator for the College course, Women Exploring Trades and Technology. Last year we were able to get funding to buy hardware so that the women in the computer applications program could actually build their own computers. The carrot was that if they successfully completed the course, they could take that computer home with them. Unfortunately, only one woman was able to satisfy that requirement. The funding for that initiative came through the Women's Directorate, through the money that was left from the Strategic Plan.

WITT does the Young Women Exploring Trades conference, we'll be presenting the 7th annual this November. This is for 13 year old girls in Grade 8 to come to the College and have a chance to get into the shops and actually do some hands-on work, produce a project that they can take home with them, to introduce them to the trades and to trades people as well. Hopefully when they get into Grades 9 and 10 they will think about taking some shop classes because they will have found that they are interesting, they are fun, and possibly that will kind of spur them on.

Several years ago I did a survey of girls and boys in Grade 10. I interviewed teachers and school counselors and the kids as well. We were shocked to find out that at that time, only one boy and one girl had received any information about the trades from their school counselors. We know that the counselors have not promoted the trades in the way that they do promote the university track.

We do a lot of short, weekend courses for women in carpentry, welding, electrical, sheet metal and so on to try to expose women to some of things that they never had. And hopefully they have daughters and nieces, and they talk to people, and they can spread the word about the trades. We have done some in the communities. We did a home repair clinic in Teslin in May. The women got a chance to get into carpentry and

electrical and dry wall repair. We were in Watson Lake last week and did a couple of electrical workshops for women. We try to get out into the communities, and also go to the schools to do hands-on workshops.

There is a conference coming up for elementary school teachers. “Innovators” contacted me to organize this, we will be doing a short hands-on presentation about what we can do if we come into the classrooms to do workshops for the kids. I am going to be doing one next month in Selkirk for Grade 6 kids on electricity and switches. Whenever we get the chance, we get into the classrooms to do the hands-on thing. That is the most effective, it’s also the most memorable for the kids.

So many women, particularly adult women, missed out on hands-on and shop classes when they were growing up, so they’ve had no experience with tools at all, or even what the trades are about. We have so many adults come into these weekend workshops who have never handled a power tool before in their lives and they want some experience, they want to know how to do some things so they can do things for themselves and not always have to ask someone else to do it. Basically, women have missed out on these hands-on experiences. Boys seem to get it, in various ways, from parents or uncles, or they take industrial arts classes in school, women never have. We’re trying to fill that void.

We use women instructors whenever possible, because it’s a relational thing for women to see other women teaching, handling tools, women who are carpenters and make their living renovating houses, who are welders, who work in sheet metal. They are such great role models because then women do believe then that woman can do these things. We also have a lot of men that we use who are wonderful instructors, who work with the women very well, but we still would rather have the women role models whenever we can.

Women as a group feel very comfortable learning new things, experimenting, making mistakes, making the wrong cuts, measuring wrong and so forth, but they seem to feel so much more comfortable if they are working with a group of women. We know the same thing working with kids that if you try to do a workshop with a mixed group, the boys will jump in first, and the girls tend to hang back, they are not as aggressive, they are not as willing to try, they don’t ask questions as much. But you get the girls together in a group, without the boys, and the whole dynamic changes completely. The same is true of adults as well. So if we can keep the women in a group, and keep the girls in a group, they seem to get more out of it. They are much more curious, willing to experiment, than if they were with a group of men. Our weekend and school workshops are just for women and girls.

Getting facilities to do workshops has been a challenge, finding places where we’ve got room, getting enough tools to be able to have people do the hands-on. If you offer a workshop for ten women, you are going to have to have at least five circular saws so they each get a chance. Finding instructors is also a challenge. The women who are trades people are working full time, so you have to ask them to give up a weekend to

teach. You can't ask them to do too much. Now that we have a workshop facility of our own, it will make it much easier to give workshops, because then we will have all the tools and materials under one roof. We moved in on the first of August at the Artists At Work Building. We also have our storage sheds that we moved there, so we have all our tools in one place. It's going to make it a lot easier for us and save us a lot of time because we won't have to pack up tools from one place then move them to the workshop then pack them up and move them back again. That's going to make things a lot easier for us.

We are still working at trying to get more women instructors involved. We are still trying to find women who are working in the trades who would be willing to donate time. We do pay our instructors, we don't ask them to do it for free. But it's still a problem with getting them to commit to the time. The workshops are offered mainly on the evenings and weekends.

We need more pre-training workshops for girls and women. It's not that you approach this with the idea that all of these women or girls that you contact are going to be trades people. It's just to expose them to the trades and to the hands-on, so that if nothing else, it will make them more independent as individuals, but also encouraging other girls and women to look at the trades as career options. But we need more exposure, we need to try to get a program where we can reach the parents as well, because they are going to be the biggest influence on the kids, so how do we reach the parents to say "A university degree is wonderful, it looks good if you have those letters behind your name, but let's face it, trades people are earning as much as university graduates now so have parents think about that when they are encouraging their kids.

We are funded primarily through the Labour Market Development Services of Advanced Education. We do get some contributions for example for the Young Women Exploring Trades and technology Conference from Yukon Energy and from the Community Development Fund as well. And WITT is funded by Advanced Education.

We promote our weekend programs mostly by newspaper, and now after five or six years, we have a long list of women who either have taken courses or would like to take courses that we contact by email. We have a rolling ad and we use the radio as well too. School workshops are advertised through the teachers and counselors primarily. For the rural schools we send out the registration packages with posters, workshop flyers, information about the middle of October, then they are notified in advance the first of September that it's upcoming, you will get the package, and so forth. We have to depend on the schools to promote. For the 4 Whitehorse schools, we go out personally to do a presentation with the Grade 8 girls.

I would recommend that women who need to upgrade in order to enter pre-trades training should contact the College, and also the College campuses in the communities because they have the programs and the texts for upgrading. They would be the best.

We would love to go to the communities more often, but the logistics get pretty hairy sometimes. The workshops have to be on weekends, we have to find people who are willing to travel, to give up the weekend, and if you do a weekend two day workshop in a community, you are looking at 4 days because of the travel set up and getting everything pack up so it's not a matter of money so much, it's a matter of logistics. Then you have to have someone in the community who can handle the registrations for you and make sure that you have people registered and find a space for you and arrange for food and all of the materials and the tools and get them there.

The workshops we give here in Whitehorse are generally \$100. That includes all the tools, materials for their projects, and lunches. And if a woman needs childcare, we pay them for that so they can get a babysitter and we will reimburse them for that. In the communities, a weekend workshop would be about the same cost. So obviously, considering the cost, they are heavily subsidized by Advanced Education. They are not self sustaining at all, money-wise. The conference funding also includes travel costs for the girls to travel in.

The reality is that for women to go into the trades, 90% of the time, they would have to upgrade their Math and English. Math in particular. That is the requirement for going into apprenticeship training now. There are some trades that will accept Grade 10 math and English, but the vast majority of the trades require Grade 12 Math. So – upgrading – that is where it has to be done. For upgrading, you almost have to go through the College because in order to register for the pre-employment courses at the College or any that are sanctioned by the College, they would have to have gotten their academic upgrading by an accredited institution, so the College is about it.

The secret to getting women interested in the trades is the hands-on. It's actually doing the actual work, and getting into shops, and finding out what it's like. That's the biggest challenge. It's also the most fun. It's also why women, and men, go into the trades, because they enjoy working with tools, working with their hands, building things, fixing thing. So you can't just offer academic upgrading and say "Well you've only got Grade 9, if you can upgrade your Math and English to Grade 12, then you can go into the trades". That's really difficult for people who have dropped out of the school system and couldn't handle the academics for one reason or another. So you can't just dump them back into a classroom and say "You've got to upgrade your Math and English". You have to combine it with what they are interested in, with what they want to do. They have to see a reason for doing the Math and English upgrading or why would they just go back into a classroom into a system that failed them once, they're not going to do that again. You have to link it with hands-on and make it worth while to them. Give them a reason for wanting to do Math and English, show them why it's relevant to carpentry, to electrical, to automotive, why they would do this.

Let's face it – the people who drop out of the academic stream do so for a variety of reasons. I think the main reason is that they just see no relevance to what they are interested in and what they want to do in life. That is why some of the programs that have been looked at successfully for kids is getting into an apprenticeship in Grade 11

and 12, combining that with their academics. In other jurisdictions it has been wonderfully successful, because you give the kids that relevance to what they like to do.

Carol Corbet
Manager
Employment Central
Suite 202, 204 Black Street,
Whitehorse, YT
Y1A 2M9
Phone: 393-8270
Fax: 393-8278
carol-ec@northwestel.net

The average ages of our clients are 25 to 55 though we do get younger clients coming in as well. We offer career exploration if they want to explore their options and determine where they would fit in the labour market. Clients may come in with an idea, which could be trades, but they want to confirm their choice. We use different inventories, review their choice through employment counseling and work with them to determine whether it is a good fit for them or not. If the choice is to go ahead and do the pre-trades for example at Yukon College in Whitehorse then we are using Service Canada's Skills Development program to assist them financially. At Employment Central our job is to assess an individual's eligibility for the program and if they fit we refer them to Service Canada for financial assistance to return to school. It is Service Canada who makes the final decision of approval.

Funding is available for those who are eligible, which means attachment to Employment Insurance. They either have to be in active pay, or have been on employment insurance in the last three years on a regular claim or in the last five years on a maternity claim. Our mandate is to work with the unemployed and Service Canada's definition of "unemployed" is basically individuals who are working under 20 hours a week-so either not working at all, or if they are working, they have to be working under 20 hours a week. All clients coming into our centre can utilize the front resource area. They use the computers/internet, check the job board, send faxes, make photocopies, phone employers. All resources are available to job seekers whether they are employed or unemployed. But when it gets to the counselling services we offer we have to follow our mandate as per Service Canada which stipulates we offer this service only to those working under 20 hours per week and are living in the Whitehorse and surrounding area. But if they are coming in from Dawson or from another area that's beyond our jurisdiction, we invite them to use the front end resource area but we can't offer services beyond that.

In Dawson City, there is the Outreach Office and another in Watson Lake; within the Yukon communities there are First Nations Employment and Training Officers that

would be able to work with their members in regards to career exploration and referral for financial assistance for various programs. Persons who are not First Nations members and are living in one of the Yukon Communities external to Whitehorse, deal directly with Service Canada.

We do extensive follow-up with our clients. Once we interview the person, we do a Service Needs Determination, we set up a file, we advise them that “We will continue to work with you through your job search”, going to school, and “we will be checking in with you to see how things are going” and offer them other services if required. We keep their file open until they are employed. One of the reasons why Service Canada provided us with a contract is they wanted to have follow-up done on the success of their programs.

One of the challenges that women face trying to get into the trades is not being aware of what that means, so they need to do research to discover their fit into that type of work, what trades are out there, what is available and what constitutes a “trade”. Most women are not given that opportunity when they are growing up, to help in building the house or fixing the car or whatever, as men are, so you don’t get the sense of the different kinds of activities that are assigned to each of the trades themselves. Lack of information and hands on experience can be a big challenge.

The financial aspect can also be a challenge. If you are determining you need to go back to school, you do need financial support. Unfortunately, with the program we work with, Service Canada is more limited, because with Skills Development you do need that attachment to the Employment Insurance fund. If they are not, then they aren’t eligible. They then need to research what other type of funding is out there. They could apply for Student Finances possibly. There may be other sources of money, but they have to research and find out what else is available. A woman may be eligible for YG’s training allowance as well. We do suggest the avenues to which they can apply if Skills Development does not fit their situation.

Betty Irwin, who is the coordinator of WITT, would be a good source of information as well for what resources are available to support them. If they are considering trades, we also suggest they go talk to the Apprenticeship Department. You can enter the trade by finding an employer who is willing to apprentice you. Then they are off and running as they can be earning their salary and learning at the same time and getting the theory part through apprenticeship. That’s the good thing about an apprenticeship, you don’t have to go back to take the pre-apprenticeship program, you can get started with an employer. Sometimes that’s a bit difficult to do too, because employers will say “Well, if you could go back and take the pre-apprenticeship training, that would be really helpful”. So you can end up in a bit of a circle there. But at least there are options.

I think that probably the program that WITT was offering through Yukon College brought more women into Employment Central to make inquiries. Just to get out there and provide the information to women is helpful, because sometimes women don’t consider the trades options until it’s presented to them and then they think “Well, that could be a

darn good option for me”. When we are in the counselling situation, we always look at all the different occupational areas and find that there may be ideas that come forward for that person relating to a trades type of occupation and then you are into a whole new area of discussion.

We get tons of people coming through Employment Central - employed or not. In this labour market, what’s happening is that people are making occupational changes. For the trades, this is an awesome time for people. Women may be working in an office setting and thinking “That is something I have always wanted to try”. There are positions out there that could be possible, an employer could be very willing to hire an individual into training in a trade. It just seems to be good timing for people to make a change and try something different because of the lack of workers here in the Yukon and across Canada.

Diavik Mine does on-site training for women or men, and Minto Mine will be involved as well, they seem to be willing to train people. The Yukon Mining Association is going to be doing training in the next few years because of the upswing in mining here in the Yukon and the fact that there will not be sufficient workers to fill all the jobs.

My advice to anyone wanting to start a pre-trades training program for women, is that it’s a matter of getting the word out. I am not sure how much encouragement is done in elementary and secondary school because that is where the seeds are sown. Yukon College does a fair bit of information provision through their open houses. It is really helpful to let women know this is definitely an option for them. Now is the time, the opportunities are there. Three or four years ago, if someone wanted to take the carpentry program we would have had a fairly frank discussion. There really was nothing happening in the carpentry area; there were just no jobs happening in the Yukon and there were so many people out there with carpentry skills. Now, we seem to always have some carpentry job sitting there, waiting to be filled, so there is lots going on right now and just because of the lack of workers, employers hopefully would be more open to taking someone in and training them. The only difficulty is that the employers are so busy trying to keep their businesses viable that they may not have much time to train on the job. That is when the formal school training for trades becomes a necessity. If a woman wants to become involved in the trades it would be an opportune time to do it now - to take advantage of this labour market.

Cynthia Kearns
Coordinator – Women in Trades Program
Liard First Nation
Watson Lake
536-4724 (cell)
dckearns@northwestel.net

I am a self proclaimed women's advocate, and have been for many years. I have worked with the Victoria Faulkner Women's Center in Whitehorse, a non-profit organization, and I've worked with Betty Irwin on Trades & Technology training initiatives. I am a long time resident of Watson Lake, and I have recognized that my community was not totally healthy for women. So that has always been in the back of my mind, to try to find something for First Nation women that would empower them and make the community a little healthier.

Other than my involvement with WITT, I haven't really been privy to or seen any training initiatives directed towards women. I t have seen training offered for men, but nothing that targets women specifically. So when the Liard First Nation purchased a three story apartment building, and three hotels in Watson Lake, we recognized an opportunity to train women in basic renovations, skills with tools, skills that would provide them with an income and a better quality of life. Betty and I over the last two years have fleshed out the program and what would be necessary in order to accomplish what we wanted to do, so it was a very simple design.

We contacted the First Nation Education Department in an effort to find interested women. We recognized that, realistically, we could take five students at a time, but our initial response was huge, we had twenty three applicants. We realized that we would have to continue with the program because we could only handle five. So when we applied for funding, we promised to do four sets of six weeks duration each. We completed two six-week programs and graduated twelve women.

We submitted a proposal to the First Nation and it was met with a great deal of enthusiasm. The Liard First Nation Development Corporation was our initial funder. We also submitted a proposal to the Department of Education and received a contribution. The Aboriginal Labour Force Adjustment Program were the primary funders.

We have two more courses scheduled. However, we are undergoing a First Nation election here on Nov 5, so depending on the outcome of that election, we could be stopped at this point.

I am the founder and Co-ordinator of the program. We hired a journeyman carpenter, Maureen Moore as the instructor.

We have been extremely lucky because the community has supported the initiative. We had WITT bring an electrician with them. They did an electrical workshop and taught the

girls basic things about electricity, how to change lights, how to repair certain things, move lights, we also had a local plumber come to teach the girls how to remove and replace a toilet, how to replace sinks, taps, and drywall repair mudding and painting and things like that. And then Dene Naye Ventures came at the end of course and did a workshop with the girls describing how you would start a small repair renovation business of your own. I am extremely grateful to them, they came very well prepared and with a lot of information that was really very good for the girls and very encouraging for them.

When we compiled key questions that would determine, out of the initial twenty three applicants, who would be the first five. The criteria included their reason for wanting to take the program, and primarily we were looking for people that wanted to change their lives, that wanted a better future, so that was exactly what we got. They did not have to have any trades related experience in their background, just a desire and a commitment.

The program was extremely comprehensive, and full marks to Maureen Moore, she covered a wide spectrum of renovating. We started with patching and repairing one of the apartments that had been badly beaten up. Then we did the painting and trimming, removal of carpet and linoleum, installation of laminate flooring and replacing linoleum, drywalling, bathroom fixture replacements. They left the six week training program with the skills and ability to renovate their own homes or work on-site with a contractor.

From the first graduating class we have two women that are currently working with a local contractor, one that is working with Golden Hill Ventures at a mine site out of town, all in the trades industry, and out of the next group of graduates, because of course the season has slowed down, we have promises of work in the future. One of the girls is going to work with her husband, who is a carpenter.

We built the program around women and women's needs, which of course are different from men's. We built it around flexibility, understanding, with the basis that we were trying to teach teamwork and responsibility, that you are part of a team and you have a responsibility to the team, but we also recognized that if you couldn't attend on a particular date or had child care issues or personal issues, those were forgiven, there were no repercussions. I think it was really important that the women knew they were going to be supported and it wasn't a pass or fail kind of thing, it was "We here to teach you what you want to learn".

I think that anyone entering into a venture such as this has to realize that you can put all the basics in place, like the journeyman carpenter, and the other instructors, but the bottom line is, and I will take credit for this as the program director, it requires a lot of care for the women and a lot of nurturing. Because it was only six weeks, we felt it was a little easier to ask for a six week completion. Alcohol played the biggest role in the stumbling blocks for the women. So there was ongoing support and ongoing counselling available to them throughout the entire six weeks. Those were the challenges, the social

challenges. My role as the co-ordinator was to seek out the resources available in the community and to ensure that they were available to the girls.

You have to be flexible, you have to understand, and if you are working with First Nations women, that First Nations women face challenges that maybe the rest of us don't and that requires a huge level of understanding and compassion.

We are constantly looking for funding sources, we are always tossing ideas around, the idea of corporate sponsorship of course. Funding is a big issue because it is a small group of graduates and the expenses are large. But we have had the good fortune of working with a First Nation that really recognizes that need. The women were paid \$12.50 an hour for the time they spent on the course, and again, we did allow for some flexibility if they could not complete a day, they were not penalized for that. We found that these girls wanted to make up any time that they missed. So it wasn't unusual for them to work on a Saturday, or on Thanksgiving Day, if they had missed a day through the week. They were able to work independently outside of main class hours. It was a four day work week, 8:30 – 4:30. We provided lunch on site. Again, a big credit to Betty who recognized that if you let people go away for lunch, you lose them. By providing a good healthy lunch on-site, it promotes the bonding and the team atmosphere. We also purchased jackets with each individuals name and the name of the program on them and a logo and a crest they had designed themselves which incorporated the Wolf and Crow clans.

The program was promoted primarily through the First Nation Band Office. We did have posters advertising specific workshops and invited all of the First Nation women, not just those who were in our program, but since Watson Lake is a small community, it was done primarily through word of mouth and the Band Office. All of the participants were members of the Liard First Nation.

Math skills were addressed through tasks like how to read tape measures, how to estimate flooring, things that were part of the training. The instructor was very patient and the group of five allowed for more individual time with her so we were able to address those concerns. The women helped each other, too. We tapped WITT's resources quite often.

We just graduated last week, so I think the participants are taking the time to relax and celebrate their accomplishments. It would not surprise me if three of the women in particular seek some on going trades training, like a pre-apprenticeship program.

We kept this program just as simple as we could, the funding did not allow for things like distance education, the funding was very specific. One on one training, workshops, small groups worked the best – keeping it simple. Part of our success was to keep it very simple and very basic.

Women never cease to amaze me. They are ready to step up to the plate, they do things, they step out of their own comfort zones, they're just phenomenal. What we all

learned about First Nations women was beneficial to us because it was a learning process for us as well. I would like to carry on with this, I would like to see more First Nations design classes that are easy and don't require long term commitments from women because situations change on a daily basis here and I think the flexibility to go along with those changes and use them to your advantage are really important.

There was some local resistance to the program from the non-First Nations. We tried to accommodate non-First Nation women in the workshops. The men were extremely interested, some of the men presented obstacles to the women initially, but on the final graduation day, there were equally as many men as there were women and the men were very supportive of their women - hugely supportive, I was very very proud of them.

The Liard First Nation Development Corporation was approached by Ross River Dene and Kwanlin Dun and I think the understanding was that the training programs would occur here in Watson Lake because we have all these resources, we have all these buildings available to us. Our intention is that the program will continue for at least two more sessions, and hopefully more after that. I would like to see everybody who initially applied for this be able to receive the training.

Dagmar Borchardt
Telehealth Co-ordinator
Department of Health and Social Services
Government of the Yukon
Phone: 667-8033
Fax: 667-8338
dagmar.borchardt@gov.yk.ca

The purpose of videoconferencing is to provide comprehensive health care services and education to clients and health care professionals in their own community. Telehealth is an exiting initiative and has great benefits for our isolated communities. As the Telehealth coordinator I am partially responsible for bringing distance education to the Department of Health and Social Services mainly to the nurses in the rural communities. I also provide assistance and technical support for our users. At this point we have 43 locations within the Yukon (13 communities are connected via videoconferencing, the remainder are sites within Whitehorse). The equipment is located in the health centers. All 14 communities now have video conferencing work stations.

These workstations have been in use since March 25, 2002 and are being used to improve efficiency and effectiveness of healthcare; utilizing videoconferencing to deliver the following:

Continuing education for healthcare professionals

Tele mental health
Early Childhood Development services
Community education
Therapy services
Family visits
Discharge Planning
Pre-Ops
Specialist Follow ups
Diabetic Education

Several patients at WGH have had “virtual” visits with family members in their home community during their stay at WGH. Effective discharge planning involving family members and health care providers in the rural community and the WGH care team, can be provided using Telehealth.

Video conferencing is still a relatively new technology in the Yukon. After our new equipment was deployed the quality of video conferencing has been excellent and its utilization has increased immensely.

Dan Curtis
Executive Director
Skills Canada Yukon
103 Platinum Rd.
Whitehorse, Yukon
Y1A 5M3
Phone: 668-2701
Fax: 668-2704
danc@skillscanada.com

We offer many programs through the communities and Whitehorse. It seems like there are a lot of journeyperson careers to be had, and sometimes it seems we are looking at only non-traditional trades, which I think personally is a mistake. There are a lot of young women that we have that go in apprenticeship trades. Aesthetics is one, we can't keep enough people in there, it's like we have 25 students at one time, it's an apprenticeable trade. Hairdressing is one, fashion design is another. I'm not saying that women should not go after the non-traditional or the dirty trades, because they are very good at it, some of the best welders in the world are women. But we do have programs from welding to carpentry to cabinetmaking with young women involved here in Whitehorse and the communities.

We try to offer exposure to individuals that may not have that opportunity. So that if someone is not really academically inclined, or if they are academically inclined, maybe they'd like to try welding and see if that is something they want to do, something they

want to carry on with. If it is something they show an interest in, then we will do everything in our power to nurture them for four years, through volunteer mentorship, and through programs at Skills Canada. It's at no charge, and if someone is really engaged with welding and really wants to go for it, then great, we'll do everything we can to continue on teaching them. And the same thing goes for the non-traditional trades, like aesthetics or culinary arts. We have a balance 50/50 in a lot of them. With baking for instance, and cooking. It does not matter what it may be.

If somebody does not have the ability to get into the higher end of upgrading, that's one of our concerns with the local colleges and other places, I understand it, I get it, I understand that they don't want a student to go to NAIT or SAIT or Yukon College and land on their face but I think that the requirements for some of these pre-trades programs have to be adjusted to show legitimate success.

We have skills clubs throughout the Yukon, last year we had in excess of 70, but it's not necessarily about the numbers, we may have a skills club that only has one or two or three students, and that's not really that important to us. We feel that we have a skills club and have one person engaged, if they didn't carry on with that career, they at least have the exposure to it and it might give them self esteem or better working skills or working as a group or as a team. Our skills clubs are done by volunteer mentors. Quite often professionals, quite often Red Seal professionals, throughout the Yukon. We're always looking for more, but we never seem to have a shortage when it comes to people showing children and youth, up to 25. We have them, depending on the volunteer's ability and time, up to two times a week for about two to three hours. They'll be engaged with the skills club that way. We are able to offer a mini-support weekend, if we can get a professional to go there to show a certain aspect of that particular trade we will to teach the youth involved. It's usually one to two times a week. We try to go the whole year, but often in the summer it runs into a bit of a snag because people are pretty busy. We offer the facility here at no charge and we offer the volunteers and the little bit of funding that we do get from our partners in industry and government, we give that out for materials.

The main focus for Service Canada is young people aged 15 – 30. We do have a junior skills program as well, which is from kindergarten up. We also have youth programs in the summertime which is 11 – 15. So we cover everything up to but not beyond 25. After 25 we don't really have anything for them, other than we can offer a little bit of guidance about what the College offers.

We are working on a relationship right now, we have quite a few industry partners, they're sheet metal or automotive, autobody, some of the local garages, local bakeries, we have those that we are really excited about. The biggest thing is partnering with someone we can help bridge the open space of not having the academics. So we're working right now on a relationship with the College. We do have quite a focus in the communities, they are really excited about it, and we're excited about it. Our hope is to work through our skills clubs in the communities and try to offer them the guidance and the materials they need to make the next step on to the College level from the

communities. We are a little bit premature in saying this, because we go out on the 19th of this month to Ross River and Faro, Pelly Crossing, Carmacs, and we're meeting with all of the people at campuses in those areas, to talk about how we can effectively get the spark going by showing them what we have to offer in the skills clubs and hopefully they will be engaged a bit to see what it's all about and not be intimidated by the College.

I think the College recognizes now too, as do we, that not everybody is going to be a journeyman and success is measured on a lot of different levels. That is what our hope is right now, that we can get out to the young men and women in the communities and let them know they don't have to have a grade 12 in algebra and various other things. It may take a great deal longer to get to a journeyman status, but there is still a lot of work in the communities, they want to stay in the communities.

WITT in the Yukon is doing an extremely good job, and I've always been a huge supporter, and they know that. This certainly is not a criticism, it's an observation, I just see that a lot of focus goes into the traditional trades that women haven't necessarily been engaged in, and in my opinion, there has been absolutely no focus on a huge amount that is necessary.

For example, an older lady in Pelly Crossing that wants to be a hair stylist, there is really no where for them to go. I know from going to these communities, there are a tremendous amount of people that come into Whitehorse every weekend to get their hair cut. Now if we offered some kind of training in the communities for hair styling or aesthetics, or technical or trades related programming, I am sure they would probably see a greater success. I am not sure what the mandate is for WITT for trades and technology, but I really think that it has to be broader, we can't look just at plumbing, electrical, carpentry, plumbing, electrical, carpentry. I think they do a good job of that but it's not for everyone.

What drives the selection of the skills clubs we offer? That's a really good question, and I'm really glad you asked that. When I first began this job, I was under the assumption, and I think we're all guilty of this, I think that maybe WITT is in the same mind set that I was in a lot of ways, "Everyone has a sewing machine, everyone has a chain saw, they need small engine repair training. I'm going to fly into town, I'm going to put on a small engine repair course." But that may not be of any interest to anybody there, we don't know what they want until we ask them. What I found was that going to the communities and trying to offer a course that I have pre-ordained saying "This is what they want" was not going to be met with success it was going to be met rather suspect and definitely not willing.

I think a concern we have is that in many of these communities, people and associations and community types have come in and shown funding for projects saying "This is what you want, this is what you want, this is what you want". It hasn't got the sustainability. What you have to do is go to the communities, create a relationship, and say "What do you want? What do you want to do?" That is what we do. We don't just

put on a club because that is what we want to put on. We're not going to promote certain trades just because we think that is what is needed. The needs are different in every community. The demographics are huge.

If I may, I'd like to tell you about Pelly Crossing. Pelly Crossing has historically been a more difficult community, it's an outpost, it's really small, nobody really goes by there, nobody comes in there. But we have a TV video program there that has been met with tremendous success, tremendous success. We have more young women than men in this program. Just going through the program, and offering what we can, which hasn't been a tremendous amount, they have secured employment with Resource Canada, they've done videos and CD's on HIV and AIDS, Hepatitis C, pre-natal drinking for the communities. They're actually getting paid for doing an awful lot of work. They've become role models and they're actually getting summer employment. These are youth that could be seen as unemployable almost, because some of them do have the disposition that generate lots of concerns. So we have had tremendous success in small communities like that just by going in and saying "What do you want to do?"

Now conversely, if we had gone into Pelly and said "We're going to put on an electrical program, here we are", the bus just rolls up, I know the success is going to be limited, at best. But to create relationships in the communities, to find out what they need, what they want, it will be different in every single community.

I am an administrator, Megan is the Project Co-ordinator, we have skills in different areas, like all of us do, but there is no way the two of us could be well versed in 40 different disciplines, and still have professionalism, so we don't really offer any skills as staff goes, we are just orchestrators of the program. We first find the participants who express the need, then we go through the community and will try to find someone who can facilitate that need and if they don't have all of the skills, we will try to have a presentation there, get someone from here, offer them a small per diem to go out and teach the level they need to get up a little bit.

We don't give a lot of these students enough credit, because they are really very astute. A lot of the communities are very visual learners as well, very three dimensional. So they may not be able to get at the written word but optically it's amazing. That's why it's so encouraging in Pelly, because with their programs, they can actually do something on a video as a teaching and learning tool. They've done that with the older populace as well, just shown that there are concerns with drinking and drugs and HIV and AIDS and stuff, so it's been really rewarding.

The consistency of being out there makes a difference. If you go out there once, they may forget about you. I think you have to be offering the support and showing that you are not working on your own agenda. I think that over the years, many people have made that mistake, go there with the best intentions, and hoping to really help, but it doesn't always work that way. We have a lot of history in these communities, Some of the schools that still exist today were residential schools. So the parents of the students have a great mistrust within the community with the school system itself. So engaging

people in the communities is the hugest success. If you can get people in the community to open up and trust you enough to see that you are not working on your agenda, you are working for the betterment of the participants. Offering any support that you can, maybe a phone call or an email or whatever it may be. That has been the most surprising to me, and I've been in many meetings, and I've heard again and again and again from some really astute people, that there are no professionals who can teach these kids, and I beg to differ.

In Ross River for example, we have a ticketed heavy duty mechanic teaching welding and small engine repair. We have a chef teaching culinary arts. I could go on and on and on. In culinary arts for instance, you are looking at a region where diabetes is so high and people are eating so poorly and all these concerns. I assumed I knew what was going on these communities – I went to Ross River thinking they were going to be teaching life skills. So I thought when I went there with Megan, the project co-ordinator, we thought we were going to see them making Craft Dinner or spaghetti or something very fundamental. That's not the case at all. It's like really a culinary arts program, they are showing them how they can have these fantastic meals and a really healthy lifestyle, as easy as it is to make some Craft Dinner. So the success I see there is that whole health aspect of breaking that cycle of eating a lot differently, especially for nomadic people, eating a lot of blander food. It's not a really spicy palette that a lot of people will have. So this program can teach them how to eat things that are really simple, yet really healthy. That's important as well.

Your volunteers are the biggest thing. I think if you can engage people in the communities, however you do it, that is the pinnacle of success. I think a lot of it is the trust in it. I'm not going to say it was an easy thing to do, because really it wasn't, I've gone to the communities, I've phoned the communities, and said I'd like to attend, they say great, we'll see ya, I get there and no one's there, they don't show up, some thing happened, sorry, so I've found that when I've gone to Pelly for instance, and I just haven't been able to get in, instead of going home, I would go to the community center and tell the people there who I was and what I was attempting to do, I'd go to the convenience store, the gas station, the RCMP. I wouldn't leave. If there was a College campus, I'd go until finally somebody would listen. And once they saw that we were sincere, and we are really looking to provide a service to the youth – sometimes it takes two or three trips. Sometimes a phone call and email is not good enough. You have to have face to face. So going back again and again and again, Pelly was very difficult to get into. Ross River was extremely hard to get into. Now Ross River has embraced us like family.

I think that a lot of people didn't understand, I didn't either, that they are not looking for money, or looking for a hand out. They are looking to know that if you do have a volunteer, it's not like what happens quite often, "I'd like to volunteer", the next thing you know, the whole burden goes on that person's shoulders. So that's what we try really hard not to do, have volunteer burnout. So we are constantly looking for new people. I think if we had a welding program, which was very successful in Ross River for instance, and that particular person is burned out, then we would go to the community

and see what else it is that we could offer instead of being tunnel visioned. We do have a lot of change over, volunteers get burned out, a new person comes on, but the new people who come on may have different skills than the person who was just there. So as long as we're engaging them.

I can honestly say too that in Watson Lake for instance, we've had kids that were on a pre-apprenticeship program, actually it was like a pre-graduation - I've seen through the mentors in communities and in Whitehorse change lives, change people from possibly going to the justice system to actually working towards a trade. The First Nations leaders are very very supportive also.

There is no minimum level to the Skills Clubs to make them run, you can have one person. You can have one, you can have ten.

One of the frustrations we have, I feel like there is a lot of duplication of services. There are a lot of organizations that have their sights set on a certain mandate even though it overlaps a lot of different mandates. Within our funders, sometimes their mandate is such that it makes it very difficult to provide the services to the best interests of the participants, I find that very frustrating. I don't find it's a hard sell when we're talking about trades and technology though, I really don't. I think the world is so short right now, employers recognize it, and that's where we're running short too, we're not giving employers enough credit and I think we have to go after them a lot more as well. That's a bit of a challenge as well. And it's not the not willingness, because they have the willingness, but I think that we have to fill that gap as well by getting more industry and less government. I know we couldn't exist without our funding from the government, we are very very appreciative of it, but I think if we were less reliant and we tried harder to get into a relationship with industry we'd probably all be better off.

Even though technology is quite prominent in the whole world right now, it seems like the Yukon, at least in our particular focus, has not been as strong. I find that we're strong in autobody for instance, a lot of machinery, especially because of the demographics where we are, we have to have kind of a two tier. And I find that we have a lot of industry here, even though it's small compared to a lot of communities. We have great representation with the sheet metal, autobody, automotive, carpentry, cabinet making are all very very strong. Welding is incredibly strong. I think when we look at the focus of the Territorial and national competitions, we may not be getting floods of medals, but it's interesting because of our incredibly small populace in comparison to some that are trained and very very dedicated, yet in Saskatoon this year we still brought home two medals, one in sheetmetal, and one in autobody. Which was amazing. And we had several fourth place finishes. We're competing against millions and millions of people. I think that the Yukon is a fantastic place. I think that a lot of our tradesmen are not making widgets everyday, they have to do everything. We have more diesel generated welders in Dawson and the northern Yukon than anyplace else in the world per capita. We have some really unique challenges that make us a lot better as trades people.

How do we engage with industry? That's a really good question too. I think we have to look at what the agenda is. Quite often, because it is a pan-Canadian organization, quite often someone will come forward with an agenda that is not really clear and not really fulfilling our mandate of exposing youth to trades and technology. But that's a good question because I didn't think of it. Up to this point I have been really directed at our youth getting into trades and technology as a viable career. But on the other side, there is already a tremendous number of people in the Yukon men and women and higher up than young that are engaged in trades and technology. So the ones who are already in post secondary education or in first, second, third or fourth year, we do support them as much as we can, say how can we help you continue?

We'll have the Territorial competition which will go on to the national competition. In the national competition, as well as the Territorial competition, we have a secondary competition and a post secondary competition. As far as I know, this is the only scale to say how good your employees are. They can come to a Skills Canada competition and compete at a Territorial level, in whatever discipline it may be, it may be welding, it may be aesthetics, it may be hairstyling, all really valuable trades. Then they will go to the national level and compete there. They'll usually place pretty well against so many millions of people.

Our Department of Highways and Public Works is a good example. The last two years, they sent an apprentice. The marking point structure was out of 1000 points. Last year our participant was less than ½ of one point away from getting a bronze, so it's a huge heat. So Public Works and Transportation sees that and they are so proud of the fact that out of all of Canada, some of the best in the world, they have produced one of the best apprentices in Canada, if not the world. So that really promotes their exposure and they are very proud of it, and so they should be. They did a good job. They can try to use that to entice other people to come on saying "Look you're not on a factory line making widgets, you're actually one of the best if you're here, and you work really hard." The next year, the same thing happened, we came very close to a medal with the same participant. Our partner with the Public Works, a sheet metal mechanic for instance, won a bronze. He was a first year apprentice and he won a bronze. So their industry is extremely proud of that.

It really raises their profile not just Territorially, but nationally. So because of that, they work really hard to get yet another apprentice on board and say "Look it, if you work here this is what we produce, we produce some of the best in Canada hence some of the best in the world." So it's a really good lure to get people to come into that field, so again it's another partnership.

We'll have a skills club, and say "Instead of signing up for a pre-employment program at the College, come here, once or twice a week, check it out, see if you like it, if it's something that really clicks, you really enjoy it, then let's get you into a pre-apprenticeship program or lets get you into YTG to talk about apprenticeships to see what you can do. If it's not something you think you are capable of, we'll keep on working with you until you get enough of those skills. "

All these trades are very competitive obviously. As a business you are very competitive. You have a lot of people and businesses to compete against. First of all competing to get the customers and second competing for people to get the work done. So it's a win/win for industry, if they can have a gauge to say that "We have one of the best in Canada", I would think that people would be compelled to shop there, to get their work done there, and to want to work there as an apprentice or get into the trade. And then they enjoy it if we advertise that we are very proud of them and they are recognized for this person who has competed at the national level, people can say "I know that kid, if he can do it, I can do it" so it's just a win/win. So at the national level, we have had industry approach us and say here is such a shortage, in autobody for instance, they want to have autobody painting, a different discipline, because there is such a shortage, so these industries will give us a donation in kind saying "just bring me back a tradesperson". So they recognize that it's not coming, it's here, there is a real discrepancy of work and people to do it so industry has been extremely supportive. The last year there has been a tremendous change from government to industry. That's where our goal is, to engage more industry. And expose more to industry as opposed to not. We are directly involving people from the skills clubs to government and industry, we are part of that process.

Something that has always been a real concern to me is it seems that – and I really pay attention to WITT because I really admire what they do – but it always seems like it is the traditional trades and I think that's a real injustice. I get the inequality and I understand that sometimes it's a difference between life and death if a woman is able to make a decent living for herself and her family, I really appreciate that. We don't promote restaurant service, we don't promote as much prepared speech, even though they might be valuable to a degree, we want people to have the tools, but we have to be realistic too and you have to see the needs, as I mentioned a couple of times, we can't go the communities and be pushing electrical and wiring and stuff. It might be kind of fun to do, it might be kind of neat, but I think it's rather limited.

If I could be so bold as to say that the Young Women in Trades and Technology Conference that happens, they do an exceptional job, they do a phenomenal job. As you can see on our wall, we have Young Men Exploring Trades, but as an event, is it worth it? I don't know. I think we have to get back into the grass roots and make it less of an event and more hands on and truly exposing them to, and not necessarily an event. I think we have lost the focus of what it really is, that is just my opinion. I have seen it first hand, and I do personally feel that we could use those resources a lot better than we do. Instead of bringing Grade 8 students in for one day of exposure of 20 minutes or 40 minutes of glass cutting or to whatever. I really think we could better suit those by listening to the youth "What is it you want to do?"

We had never done the aesthetics before. This is the truth. We put on the aesthetics program. We've had people call us and say "Anybody who finishes your program has a job." Period. No questions asked. That's been our most popular program. If that's our most popular program, if women are guaranteed employment for taking a volunteer

mentoring program, why are we not offering what they want to make a living? It is a career. I don't know what the band-aid may be. Maybe it's "lets push non-traditional trades. I know this is a certifiable trade, it's a profession, and they are screaming for people. It's employability. We haven't paid a dime for training for it yet it has produced several jobs, good paying jobs.

I am suggesting that for both the Young Men in Trades Conference and the Young Women in Trades Conference that there be more consultation with the youth about what they want to be at that conference, and a wider range of traditional and non-traditional trades. That's what I would encourage. I have been on the steering committee for WITT and I really admire what they do, I have vocalized that and sent letters to say that I think its really really impressive, the dedication and the hard work they do, but I think that sometimes when we try to promote women in trades in technology we're doing stain glass or jewelry, things that might be perceived as a hobby, even though they are all really good things, but if the mandate really is trades and technology, let's get out there and see what they want.

I know that the Independent Learning Center has done a hairdressing program for some time, and they are knocking out professionals, and they're all women that may have kind of slipped through the cracks, but because they have been offered that hand to say "If this is something you enjoy, you can have it". They offer a good combination of the literacy and a trade they can enjoy. I've seen the enthusiasm on these kids' faces, and I can tell you, for any dozen kids I see cutting hair, I don't think any of them want to be a welder, I don't think any of them want to be a carpenter, I don't think any of them want to be an electrician but maybe it's good to give them that exposure, which they have through us, they can take it and see if they like it. But they've found their niche, they love what they do. So I see a big discrepancy there too, just like we have with WITT. It's a big imbalance. So there is an imbalance in saying "Women can do this" because women can do an awful lot more than that. It's much like going to the communities and saying "This is what we're going to give you". Maybe we should go there and say "What would you like?"

Our primary funder is Service Canada, they give us some money to work with, and the shop that we're in; we have some money coming from the Territorial Government Advanced Education, they are the funder of the Young Men Exploring Trades, that is what they would like us to do so that's what we are doing, and I think there is some valuability to it. They are not a major sponsor, though we are very appreciative, they are not the top end when it comes to offering funding for our programs. Also in our junior skills program, we offer our facilities. Downstairs we have a carpentry shop which we use for welding and other things. We open that up to schools that don't have the infrastructure at no charge so they use it as well. The other funders come from our partners, the unions, the Workers' Compensation Board, industry, a lot of in kind contributions, and of course our biggest contributor is the volunteers that put in so many hours. It's really phenomenal how much gets done for how much money goes out.

We advertise in the local newspapers. We try to be different. I think that is one thing that's good to get. We have a committee to say "What are we doing wrong?" because I find that if it's the same message, in the same format, it's not really captivating. We've gone into the high schools and done announcements on the intercom system, get in their newsletters, try to get into media and dialogue that goes to our target, which quite often is youth. For instance if "What's Up Yukon" is going to distribute to all the schools, we try to get in there a little bit more; we try to get the parents involved. A lot of places that kids are going to be, parents are going to be. We try to make it not wordy but a bit of a catch. The web page is a big thing. We're trying to revamp that as we speak right now. It's going to display all of our community based programs and skills clubs. So it's just trying to get the key. We are the promoter of trades and technology. So the big thing is trying to find out where our target audience is and go from there.

We get asked to speak quite a bit. We have one presentation for Saturday, for home study of aesthetics. We talk with the Apprenticeship Board. Megan is currently working on a new presentation for the schools, we'll try to do a presentation in every single school. We quite often go to the schools, we'd like to do more, they are pretty receptive to let us get in.

We don't really have the funds to provide students with transportation to get here. The thing is too I think it's important to mention as well that a lot of our programs and a lot of our skills clubs may not be held here at the center. We don't have the facilities, we don't have a culinary program here, or the expertise, we don't have baking, we don't have welding per se. So quite often we will piggy back with one of the schools or a different the facility. That's something we are working with the College on, trying to get into some of their rooms that aren't being used at times and try to offer them there. So quite often, they are offered on the school property evenings and weekends. The times are pretty much up to the volunteers. It's usually about 6:00 or 7:00 o'clock. At the center here during the winter it'll be five or six days a week the building is being used.

The question of literacy is a really precarious one for us. Even though we certainly recognize there is a problem there and we need to help with that, but unfortunately the mandate of our primary funder, Service Canada, the audience we are looking for are the ones we don't anticipate are going back to school, the ones who have dropped out or are not engaged in higher learning. That's not something that we really agree with, I think they are aware of that as well, but that's the way the mandate is based. But we try through our volunteers, and if there is anything we can do as well, working in partnerships with people like the Independent Learning Center. The Independent Learning Center uses our facilities quite a bit, we have a good relationship with them. We try to offer whatever we can on our end, we try to encourage them to stay in school as long as they can and try hard to find the bridge work, at whatever level they are, to get into a college program after they finish our program. We certainly encourage it and give all the support we can, however we can't publically go after that domain because our funder specifically says "You have to engage people that are not going to continue on to the next level."

Our programs attract kids from a wide variety of backgrounds and have different goals regarding academics. There are no criteria saying you have to be not working or not in school or unemployed, you could be quite academically inclined and still take any program you wish. No one is turned down.

We really don't have any material or curriculum, we just offer the next step, we like to think of ourselves as the farm team for the College. In the past, I'm kind of ashamed about this, we used to say we had a list as to where they could go. So for example, we would say that for aesthetics, you go onto Carvelle College. We'd always give them a place, where they could stay, how much it would be, we did some research here to say "This is the next step". Then we woke up and smelled the coffee and realized we provide a lot of these services in the Yukon. So we try really hard to bridge from the skills club to the community campus or to the Yukon College.

We are not offering any distance education at this point, but there has been discussion with the College, they are very receptive to it, I am supposed to be meeting with the President this week to discuss it, that is one of the things on our agenda. Distance education is something the Board is very anxious to see happen, we are very excited about it.

If someone were to offer anything to us, someone coming in would be most useful. If we had someone who was going to get the message across quite well, that would be helpful for us. Our program mandate is primarily youth, so it's nice to have youth present these programs. We have been very successful with our alumni, people who started with the skills club, found it was something they really enjoyed, then they go to college, university, trades school, quite often we get those people back volunteering. They know from the grass roots what it is like to start. Volunteers and mentors are the most valuable resources, not texts. We tried all the dialogue in the world and they just end up, like a lot of my reports, in the garbage can.

My main advice is "Go to the communities and see where the need actually is." So instead of offering a program in the communities, I think if it were left wide open, these are the choices, and someone actually going in there and consulting with them, and trying to create a partnership in the community. All you need is a couple of people in the community that know the community to get in there and help you find these people. We don't need ten people, if we only have one or two, that's fine, at least we can offer the exposure in a particular discipline. If it is something you enjoy, great. If it's not, then maybe we won't go the next step. It's just something to get them hooked a little bit to say "OK, this is what it's all about". This is what graphic design is. This is what animation is. This is what carpentry or baking or fashion design is. If we can get that, then we're laughing, then we've got them hooked. Then we can start looking at what facilitates that particular person.

When we talk about curriculum, that's such an ugly word. That is what has happened in the past, you have a base that everybody has to do. But if you had more of an independent, individual curriculum, on an assessment basis of each individual, and

seeing what their abilities are, and what their desires to do a particular program are, then we're going to have some success. But to say that you have to have Math 040 or Math 050, and distance education, frankly you are going to have some people who are in that same class or program for five years. So if they can't get through that, then maybe we should find a way to get around that and they can catch up later or find a level of success that they are capable of.

We are always very receptive of anyone's desire to join us or to help out or we can help them but we have to be kind of careful because our funders are very specific about what our mandate is. That is where we are very fortunate to have some industry support in perhaps the union or whatever, then we have some discretion but because it is public money which is specific, we are accountable and that's OK. If I or Megan were to facilitate or orchestrate a program to help with child care or something, then it is construed that if my time is being paid by my funders, it should be spent in more direct programming.

I think that program planners should step out of the box a bit and look at a lot of professions and occupations being desired that aren't being touched or scratched on. I think the success would be unbelievable and again I understand that we all have a mandate but if we're looking at trades and technology as a whole, and trying to engage women of any age, then I really think we have to be less specific about "We're going to offer these trades"

Dave Nugent
Dept. Head – Trades and Technology
Yukon College
Box 2799, 500 College Drive
Whitehorse, Yukon, Y1A 5K4
Phone: 668-8748
Fax: 668-2935
dnugent@yukoncollege.yk.ca

We offer the Women Exploring Trades and Technology (WETT) program which we have run the last two years and it will probably run next year. Prior to that we had some part time programs, with the WITT (Women in Trades and Technology, a non-profit NGO) organization of course. Some weekend workshops, a couple that were full time, but only two or three weeks in duration. That's the evolution of it. It's become the WETT Program. It is 16 weeks long. It has evolved quite a bit, things have been moved in and out of it. It was originally based on an Apprenticeship preparation program. It seems to me like it's kind of going back that way. Our WETT program for next year is taking on some of the characteristics of an apprenticeship program, like the testing of them with the Apprenticeship Entrance Exam. There will be a little more emphasis on Mathematics perhaps, a little less emphasis on the communications course, and topics like the gender issues won't be weighted as much, and on testing of the students.

There has been a lot of input, a lot of research, stuff that your sister did from the beginning, her original report. The steering committee for the WETT program that we've got now includes WITT and members from government. A lot of the design was already there. As a Department of Trades and Tech, we wanted them to get exposure to stuff that we offer basically, we'd like to recruit them, to tell you the truth, a lot of them are undecided about which way they want to go. Sixty hours of hands-on experience in each one of the shops seemed to be enough to either whet their appetite or not. And there's other programs, like safety tickets, so they are more employable anyway. Conflict management, things like that. So the design was based on what is available here. It was kind of designed on another program we have here called *Skills for Industry* where they get upgrading, safety training and practical hands-on specific skills to what industry they are training for. So this is sort of after that model, but a little more generalized. The literacy part of it is actually language in science. It is done – not subliminally, but they use the language all the time. It's trades language, trades math, applied science concepts.

One of the neat additions was having them build their own computer. So they understand all the components and stuff. And if you pass, you get the computer. It's a good bonus.

Originally we wanted to have as many female instructors as possible but there were budget constraints, and we did have available instructors here, and you know what? We talked to the students themselves and they said "It doesn't matter. The trade is the trade, we want to learn the trade, we don't want to learn a different version of the trade than is out there." All of the hands-on, real stuff they could get, they enjoyed. That's how it has evolved.

Our challenges have been mostly administrative. Some of the individual students have challenges that they have to overcome for sure, there's single moms, there's lack of income, there's day care issues. That's their own personal lives. To overcome that, we came up with a supplemental bursary. They had to prove what their income was then we would raise it to a certain level with this bursary, that seemed to work. From our end, scheduling is pretty difficult, because there is such a wide range of courses and programming that you have to offer, so at the peak of the year, it's hard to find the appropriate shops at the appropriate time. We have a master scheduler amongst us, she's pretty good at that, but that was a bit of an issue. We got more money for the pilot than we do for the regular offerings so there was a little bit of a financial challenge there.

The funding for the program comes from Advanced Education, they are also funding the bursary. I think we also charged a tuition and of course that goes back to them. We had to defray the costs. There are other hurdles, issues around attendance and tardiness and things like that, but they are not any worse than they are anywhere else, the same issues as we see in the pre-employment courses.

What has happened I think is that the first batch of students were really gung-ho. But I think that the market we were targeting I think has been depleted somewhat. For the last offering we did have some problems with the Canada Winter games being right in the middle of it and I think that with the booming economy, pretty well anybody who is able to work or going out to volunteer or whatever they were doing, was out there doing it, so we had low enrollments last time. I think you have to have a pretty good group dynamic in order to make this program work well and if you have low numbers and there are a few problems in that group, it doesn't help. So in terms of running it again, those are stumbling blocks we would like to avoid. A lot of it had to do with not being able to advertise and having the College shut down. So I expect that next year's offering will be a little more successful than this last one where we only has six students. It's a once a year offering, a sixteen week program. And to tell you the truth, I would probably be a proponent of rotating it every other year, given the numbers at this point. But having said that, you'd have to try it out to see if it did work so you could keep the numbers up.

To promote the program, we have had info sessions, we had two or three of those before the actual program began, they are well attended. We have had them at the Public Library, and here at the College. We have 24 – 30 people out so we do that. Then of course we use WITT to advertise, the Women's Directorate helped us out. They donated about \$7000 of advertising for us; radio, papers, pretty well across the board.

For women needing to upgrade, we recommend the Apprenticeship Preparation Program. I think the original program came out of the Northwest Territories, I think it went down to Alberta and of course, we've had our input. We've designed our own based on that curriculum, we've had math and science teachers going through it. I think that in terms of getting into an apprenticeship, that's a more direct way, do the Apprenticeship Preparation Exam, if you don't have qualifications from school. The CAAT test (Canadian Test of Academic Achievement, the College entrance exam) doesn't test you specifically for trades, it's just so general and I find it's not very accurate. You can get in through GED (General Equivalency Diploma) too if you can achieve the correct scores but in terms of people who know where they want to go, and know they want to get into trades, the Apprenticeship Prep is the way to go.

The Young Women Exploring Trades is a two day conference for Grade 8 girls, November 15 and 16. They do quite good up here. We open up the shops for them, they do little projects in each of the construction trades shops, one in automotive, one in electronics, one in electrical, then they have a bunch of stuff going on down in the gym, they do painting, it's a little bit broader scope than what we offer. It's a big hit. Lots of bubble gum and giggles.

There's not that many trades instructors in the high schools, but there is interaction with the College instructors. For example, I give them modules so they know where Apprenticeship is in terms of how it's evolved since they've done their tickets, what's new basically. So they can use us as reference any time they want. Mostly they do their programming though. At one of the schools they could not find a mechanical instructor, so we gave them one of ours on secondment. So that type of interaction we have. I

think there needs to be better communication between secondary and post secondary educators on a broader scale, pre-requisites and things like that. That's a concern.

We have not offered WETT through distance education yet. Given demand, yes there may be in the future. We have the capability to do some stuff, through video conferencing. A lot of our material, for apprenticeship training, you can do on-line through SAIT. The theoretical portion of our carpentry program is available on-line through SAIT as are some electricity models. Anything like that we could put out there. I know there is some research being done right here right now to make us a hub for some on-line distributed learning. It's just in it's infancy, but the program would lend itself well to that, in terms of the safety tickets you can do, some parts of the theory, but the hands-on stuff has to be hands-on stuff. So they would have to come into Whitehorse to do that, or have a suitable facility where they are. Then it's a matter of staffing it. What you could do is have centers of excellence in each community, so one would focus on carpentry, one would focus on mechanics, and you could have a mobile show, that would be pretty neat.

The program the College uses for distance delivery is called the Learning Manager 4.2. So that could be potentially available to anyone in the communities with internet access that was registered with the College, if we get that far. Currently it is available on-line for Whitehorse students.

If you had set curriculum that was fairly well standardized, The Learning Manager works well as a vehicle for getting it out there. I find that all of our instructors always fall back on their own resources, the old resources too, a lot of times there it is on-line, but we have to down load it and put in on paper so everybody can understand what we're doing. Anything that is self-directed is a resource of second choice. It's better to have a live person and learn hands-on in front of the person, but for distance, it might be the only thing you can do, you need commitment, that's all. Classroom instruction provided off-site by an outside resource could potentially be useful, that's what that Learning Manager vehicle is all about. Here we have some high end, state of the art computer software and access to the internet that we use in our carpentry class. It's called Computers on Wheels. We have a wireless router hard wired inside the classroom, we have a thing called a cow which is a computer on a wheeled cabinet filled with laptops. So each student can grab a laptop and access the internet with out being plugged in. So it gives them more ability to be self-paced. So if they catch up on a shop project, and they've got more time to do theory, they grab a lap top and away they go. Or if they are having problems, they can stay after, it's easy access. Right now carpentry and electrical are the only ones we have on-line. This system is a week old, fairly new!

Internet access and video conferencing capabilities are required for any community organization wanting to offer pre-trades training for women through distance education. I think we've got that in most of our communities now. I think the vehicle is there.

To get women engaged, I think you have to have personal contact to begin with. I think there would have to be a panel that did a tour of the communities that did some

demonstrations. It's a marketing thing. A presentation of the opportunities that are out there. We did a program that would parallel this when the pipeline was going through and we had all the oil and gas development and they did info sessions, through the Yukon Territorial Government, had experts in the field up and showed us upstream possibilities and downstream possibilities. It was very effective for getting a lot of people into the industry. We're still offering training and we still don't have that much development. I think you'd have to do that, you'd have to actually have a presence in the community for the info session and just keep after them through your campus co-ordinators.

I kind of like the idea of the centers of excellence because you're talking about distance in the communities, I think you'd be spread too thin if you had to offer a taste of every trade or technology in each community. You may need to create a great big trailer tractor and circus road show to do that. So I think that the idea of the centers of excellence would work. If you were in Mayo, you could do carpentry and a plumbing show, and maybe an electrical and electronics show in Dawson. Your student body could be somewhat mobile too because that is part of the job, travel is part and parcel of working in the trades. That's one idea. You could hire people locally to demonstrate, and involve as many people as you can. The theoretical part can be done on-line by video conference ½ the day and hands-on for the other ½ day. That's a possibility. You could do the safety stuff by video conference too. It's just not as effective I don't think.

Ed Bergeron
Welding Instructor
Department of Trades and Technology
Yukon College
Box 2799, 500 College Drive
Whitehorse, Yukon, Y1A 5K4
Phone: 668-8761
Fax: 668-2935
ebergero@yukoncollege.yk.ca

In the past I have been a volunteer for the Women Exploring Trades and Technology program (WETT) prior to becoming an instructor at Yukon College. Once I got involved here at the College, I've taken on several different aspects of the programs. One is, every year they bring in over 60 eighth grade girls and give them exposure, they don't spend much more than half an hour, there are three groups of about 20 or thereabouts. That is the Young Women Exploring Trades and Technology conference. Also in the past couple of years, we have had two programs, which were a group of women who qualify for the program, the numbers were limited, but they essentially got two weeks in welding, two weeks in carpentry, two weeks in electrical, two weeks in plumbing, two weeks in mechanical, two in computers and on and on.

I thought that was pretty neat, that gave those candidates a real taste of what they were about to get into. In fact I have one of my students involved here in this pre-employment program, got her first exposure to welding through the WETT program last year. The year before I had a student who had been in the previous WETT program, she liked welding, that's what she got into, she went into the pre-employment program, she is out there working somewhere as a first year apprentice right now. I think that type of program is optimum. They come in, I supply them, with the modules for learning the different aspects of what we are about to take on here. We try to keep it basic. We manage to teach them oxyacetylene cutting and welding and some arc welding as well in that two week period.

I'm not sure of the numbers of successes out of these programs other than those successes that come out of that program to me, to the welding program. So out of two WETT programs, I have had two successful students enter my program. So they know what they are getting into. They come here for the pre-employment program, after that, they know exactly what they are getting into as far as the kind of work.

I was very fortunate with the first group that Miss Pat Newhouse from the Vancouver area, she is with CWB, which is Canadian Welding Bureau. She's an inspector. She comes to the Yukon, the Yukon is part of her area. She gives tests to welders in various shops that are about to take on bigger contracts. And she was able to come in and give a talk to that group, if I could get her to speak to every group, every year, it would be a big bonus. She is a role model in that field. The gist of the talk that she gave the girls, and I was a witness to it, I just gave her the floor and I sat in the background and paid attention. There were two things. One thing she related to the ladies was never lose your contacts. Keep your contacts that you make in the trade. And yes it is somewhat difficult working in a trade that is predominantly male. But also, the most important part of her talk, was that ladies have to realize, they have to figure out, how men think and either emulate that or be aware of how they think, what they are going to say at any given time to a situation, realize how they think.

It's quite similar to me and my French. I am taking up another French class, my wife speaks French, my daughter grew up bilingual. Both of them are bilingual but my daughter goes to a French school. I've been trying to learn French for a long time, I believe the easiest way for me to learn French is that I have to learn to think in French. Then it will be not such an issue. I'm having a hard time doing it, I am not a young man and my mind is pretty much forged in its own way.

Anyway, to relate that to women working in male dominated trades, they have to be aware of who they are working next to, they have to pay attention and be aware that that guy, who may be a big hurly burly guy, rough coarse talking, chances are he's afraid, he's never worked with a woman before, he doesn't know how to act. He's got a wife at home and kids, maybe he's got some girls in his family, but it's different out there on the shop floor. So to be aware of who they're dealing with and how to relate to them. I think that was the most important aspect of her talk.

Pat didn't come here to be a role model, she happened to be in town, she calls me every time she comes down just to touch base, hey how's it going? We don't do business together, but both working in the welding trade, she just likes to come and touch base and shoot the breeze with me. But when she called that time, I said "Hey, I've got this group of ladies here, will you come down and give them a piece of mind about what they are up against?" It was a real opportunity for them.

I'm not real sure what it is about the WETT program that makes it successful, I've only seen one little piece of the whole picture. I have yet to sit in on any of their counseling and that sort of thing. I know there are other people who speak to them on other subjects besides just the trades, so I'm not sure. It's a women only group of students, and it's usually women only who come in to speak to them, on other issues. At this particular time, I am the only welding instructor at Yukon College, so they're stuck with me.

I think some women prefer to be in a woman only group, some could go either way. I think the ones who succeed, and here I am talking small numbers, but they could care less. They're focused. In any group you get a cross section. I think some may hinder others with their attitudes. I think one of the biggest issues I see when you get involved with groups of individuals is the quality control of the screening or selection of those candidates who come in to do this – I call it a pre-trades qualifier, (the WETT Program) even though that might not be the right word for it, where they get the exposure. I've noticed that if I get a group of say ten women, rarely do I have five there in attendance. They kind of come and go, and only the serious ones seem to stay involved. So I think they could do a little better in their quality control, select the proper candidates that are not just along for the ride, they need to be serious.

There have been other challenges. There was one lady who was just scared to death of flame – it's hard to get very far in the welding situation without flame. She was only one, and it was a personal thing, I did the best that I could do to help her overcome that. She was still a good student, she still studied the material and she was able to help me in other areas, tidying things up, she wanted to be involved, she wanted to know about it, but as far as actually having to have that hot torch in her hand, she was just nervous. I'm glad we got it sorted out while we did, but that torch taught her something about what she didn't want. But she was the only one. Everybody else seemed to take to it pretty good.

Some of the women may have had some exposure to trades before they entered the WETT program, but I think the majority, probably not. I think any that do have any experience, their husband or father had a shop at home at home kind of thing, have a little more advantage over those that don't.

My advice would be to make sure your candidates are serious, make sure that they are serious. Make sure you know where they are coming from and why they are doing it. How to do it? That's a toughie. It would take just a good interview. I try to sort out my students when I get a new group coming into the pre-employment welding program and

let them know the seriousness of the situation they are in and if they have any second thoughts at all, I would rather have them leave sooner rather than later because there are other people out there waiting to get in. The pre-employment welding course is five and ½ months, 20 or 22 weeks.

The sixteen week WETT course gives the women exposure, gives them a sample out of everything. In the carpentry program, they're making stuff out of wood. Here they are primarily just welding. I think that Yukon College does a pretty good job of fitting them in. Our trades instructors here are, in my opinion, pretty high caliber and I think everybody works well with them in that situation. I think it's a good program.

I know there are programs here at Yukon College that I believe are called Pre-Trades Qualifiers, the Apprenticeship Prep Program in Developmental Studies, that are available. That stuff is out there, it's not like one has to fight tooth and nail to get it, there are programs available. Of course they're not designed just for women, it's not gender knowledge specific. I use my ILM's from my welding program, I take some topics out of my first year pre-employment program from the modules that pertain to what we are doing and make copies of those to supply to the women, so they've got that written material to do their homework. Then I treat them just like any other group that I deal with.

At this point there is no on-line component to the program, I find that the welding itself is a lot of hands-on. I like to say "Here's the book, read the book, then the next day will be hands-on, then go back and read the book and we'll have a test on it tomorrow."

Women do just as well at welding as men do. It's a hand-eye thing. They don't have to weigh 300 pounds and be able to heist 500 pounds in a back pack and pack it down the road. In this day and age, awareness is quite up there as far as what physical limits workers need to go through. 50 pounds is the maximum anyone is required to lift on a jobsite, so there is no reason why a slight woman couldn't do the work.

Hard copy would be the most useful format for curriculum if anyone were to develop it for us. We use NAIT curriculum, they have pretty comprehensive material, I appreciate using it, I don't disagree with much of it, I think it's put together well. You can only do so much reading and then you've got to get your hands dirty. Distance learning really doesn't allow that. Yeah, you can read the book from A through Z, and yeah you've got the book down, but if you haven't been able to put your eye and hands to work, maybe even burn yourself in the process, you haven't learned anything. It's all theoretical, it's all hypothetical. Some of the trades are just that way. I think welding will be the last hold out with this long distance learning thing. Somewhere on the other end of the line there has to be a welder person who can take the student who is doing the long distance learning and apply it, otherwise it's just a total waste of time. On other subjects, yes, maybe, but as far as welding goes, it takes a human being. Without a hands-on component in the community, distance learning for welding would be destined to fail otherwise.

When a student comes in the door, doesn't matter whether it's a male or a female, I feed them the same information, I expect the same thing out of them, it matters not to me, it really doesn't matter.

I think the one thing that would improve women getting into trades, is that there be trades instructors in the high schools. So instead of bringing all the Grade 8 girls into here and giving them a 20 minute taste of welding, then send them on back to school, that's really sad, come on now. There needs to be trades instructors in the high schools where the kids can start getting involved early. Why wait? As far as I know there is really not much trades opportunities in the high schools in Whitehorse. I think it's just sad, it's totally sad. We cannot expect to get more people involved in the trades, and especially women, if they can't see it and experience it before they're out of high school. It's totally ridiculous. When I was a kid in school, we had shop classes, we had home economics for ladies but there were guys who took home ec, there weren't too many gals who went into the shop programs, that was back in the 60's. But with the open awareness in this day and age, there is not any reason why there should not be trades instructors in our high schools touching base with them at ground zero. They are able to learn. These groups of eighth graders that I get in here, I show those girls how to run a cutting torch, and after the second cut, they're doing it like a pro. It's no problem, whether it's guys or gals.

It seems that people are bending over backwards to accommodate women getting into the trades, I think it's too much sometimes. I think that any woman who wants to get into a trade – the doors are open! All they've got to do is get their heads screwed on, get their head wrapped around "OK I want to be a carpenter", nothing is stopping her from being a carpenter. Or a welder. Or any of these other trades. I can see some encouragement out there, in programs like WETT, and WITT, for that exposure, because some of the women may be a little older, not fresh out of high school, and this exposure is good. But I think one can take it too far. There are basic rules in the workplace, those rules are there for everybody, I think too much stretching of the parameters to accommodate women, I don't think it's fair to the women. Some of the men, they put them on edge towards the women although otherwise they probably would be fine. I think a woman who wants to get into a trade, I really don't think there's much stopping her.

More exposure to trades earlier in school would help for both women and men. I am sure that some of the women who have gone through the WETT program, while they were in high school would have liked to explore carpentry or mechanics or welding. But there was nothing there for them to check out. So they get out of high school, they flop around doing things they are really not happy with, and ten years down the road, maybe they've got a couple of kids now, they are still totally unhappy doing what they are doing. Finally the WETT or the WITT program comes along, and they can break the mould that has been cast around them and actually step out and do it. I think this was the case with one of the gals in the previous pre-employment program, she had two teen aged daughters but by golly this is what she wanted to do, and she had wanted to do it for a long time.

Why wait? It's ludicrous. Every high school out there should have a carpentry program, a metal program and a mechanics program open to everyone, guys and gals. They should try to structure their class so it is half girls and half guys. Then I think you will start to see some movement. But until we can afford that early on, a 20 minute shot at welding when you are in the eighth grade – even then, the eighth grader says “Hey I like this” – she has to finish out her entire four years of high school after that and she never got to pick up a torch again at school. What's the point? I think it's pointless bringing those kids in here for that sort of thing and then not being able to offer them down the road, in short order, the opportunity to mess with that. They touch all the trades, it's not like I'm the only one. They see something, they like it, bingo, something turns on and that's what they want to do, well, afford them the route to go.

Faith Whiting
Instructor
Developmental Studies
Yukon College
Box 2799, 500 College Drive
Whitehorse, Yukon, Y1A 5K4
Phone: 456-8605
Fax: 668-8828
fwhiting@yukoncollege.yk.ca

Last year I taught the Apprenticeship Prep Program (APP), a math course and a science course. I have also taught a math course for the Water Operators program that has not included women, just because there aren't any in the trade. I was involved in developing that curriculum.

The Apprenticeship Preparation program was open to all communities in the Yukon as well as people in Whitehorse. We ended up teaching a group of students in Carcross, and another group of students in Dawson, and we had a student in Teslin and a student in Pelly Crossing. Neither of the single students completed the course. We had a few communities involved. We met daily over a video conference for three hours every day. For an hour and half we did the math course, and for an hour and half we did the science course. For some of those students there was a practical component in the afternoons. That was tailored individually to community campuses. The Carcross campus did it differently than the Dawson campus, who offered programs at their campuses, where as the student in Teslin and the student in Pelly Crossing were just taking the courses. The practical component included things like First Aid, WYMIS, tool safety and some practical components of carpentry. In Carcross they also had an

afternoon component. The Yukon College instructors at the community campuses looked after the afternoon components.

When you are teaching something like trades preparation, it is definitely beneficial to have the practical component. It is a broad entrance and not everyone knows what trade they would like to pursue, so having academic theory and doing something practical works well as a full time program. It was actually very successful. It was the first time we had ever taught it by distance, so we were learning as we went. In one of our communities, it turned out that people had been away from school for a while, and a lot of the students did not have a solid math or science background, so in Carcross, they had to cut back on their practical because the students needed extra time and help with the theory so the carpentry trades instructor made a shift and focused on theory and in that support trying to link it to the practical. So one of the things we learned was that the students were not able to move along as quickly as we had anticipated with the material. It's quite difficult, some of it, especially the science. We had 50 year olds, 40 year olds, who haven't been in school for a long time and some of the science concepts are pretty in depth, so we just had to slow things down and adapt.

There is a practical project as part of the curriculum, and we had to adapt - how do we do that by distance? Actually it turned out really well, we mounted a community challenge and they had to construct a trebuchet, there are specifications they had to be built to and they video taped their launch then we broadcast the tape across the system, which was a really cool way to connect and see what other people are building, it was good.

There is a minimum academic entrance requirement for APP, but because we were working with communities, and we were all working as a team, we decided to sort of make those requirements a little bit broader and we worked as a really tight team and communicated a lot. You are always limited as a teacher when your students are not in the same room as you, so it if looked like students were having a hard time in Dawson, that message was communicated and we just gave more time. What we ended up doing in Dawson, because the students did have quite a difficult time, we hired a tutor to be in class and work with them, to have somebody on the ground working with them. We put the students first, so we allowed ourselves the flexibility but we did have a time line. The curriculum is tailored to the Apprenticeship Entrance Exam so we had a date when we were to write that. And we always kept the mind set that particular students who had not been in school for a long time or who didn't quite meet the academic requirement may need to take the course more than once in order to pass the exams. That is an option as well.

There was quite a bit of assessment built into the course, there was a daily math quiz and a daily science quiz. I received those results, and if I saw that no body passed the quiz on the Science Unit 2, then we would talk about that and take the time to address it, then put the supports in place for them to have extra help. We were meeting in the morning, so the afternoons were really up to them. I tried to stay in communication with

everyone and let them know when they needed to seek extra help. So putting some extra support out there for the distance thing was very helpful.

The students were all individual cases. There was definitely a difference in the way the women approached the subjects than the guys. It seems most of the students we were working with were not only living in a rural Yukon community, but also we had a high proportion of First Nations people. A pattern I noticed was that the men, even the older men, all had a reference point. They all knew what the engine of a snowmobile looked like. They knew simple machines. They had used tools, they had fixed things, whereas the women didn't always have a reference point. I think that was difficult because of societal rules or whatever, the women had not had the opportunity to problem solve in that way that the men had. So the guys were always there and always ready to make a comparison with whatever concept we were talking about in science. There were two women who stuck it out until the end and as far as I know they are not currently pursuing a trade but they did complete the course.

Everyone took the Trades Entrance Exam at the end of the course. Not everybody was successful with the exam, it was actually quite amusing, as a group, they were all very proud of themselves. We also worked quite closely with Advanced Ed. There were some amazing success stories, some really great successes. Not everyone passed, but Advanced Ed offered that you can go back, keep studying, and try the test again a month later. Most of the students were not successful the first time did that, and passed the second time. So there was definitely some dedication involved, which was great.

I was warned a lot at the beginning that working with community groups, working with the demographic that I was, that I would encounter problems like substance abuse and attendance and I definitely did. There was a lot too. At the end of the course we discussed that learning by video conference, where you are essentially learning from a screen for three hours a day is not ideal. That's a little bit long without a significant break in between. So maybe the structure could be different. This year when we are offering it, there's two instructors, there's a break in between, then you see a fresh face with a fresh way of teaching, which I think is a great idea.

But given all of those challenges, we did really well. People do have those challenges, attendance is sometimes just a lifestyle issue. It really helped that in both Dawson and Carcross there was a group, so you weren't just doing it on your own, you were doing it with a group. The group could keep each other on track and help each other. And also having support people there as tutoring and helping people along.

Strategies for attempting to deal with the attendance issue were communication, making it clear to people that they were adults and that was a choice they were making. Most of them seemed pretty keen to keep up with it. And there's patterns. Christmas was a hard time for some people, so Christmas we didn't see everyone attending 100%, but that's the Yukon, that's the communities, that's the education we working with. It wasn't an insurmountable challenge.

There was no attendance requirement, it was the same as most College courses, but it was a credit course, they all received a grade so that was reflected on how they did on their assessments, so if they did not attend they probably would not receive the grade they probably could have regardless of their attendance. Then there was an exam at the end of the course, so if they were not there, they probably didn't pass that either. That's the price that they paid.

I think the College has done well with the Women in Trades initiatives that have been run so far. I think that isolating women and teaching them and introducing them to the world of trades is a good way to do it as an introduction, because women don't have that reference point all the time. I think that isolation should be for a period of time, and then it's time to interact. I think it depends on the women as well. Some women would not feel comfortable in a mixed class, whereas some women might. So it's good that it's a choice and I guess with those pre-trades initiatives, bringing in issues about differences in the workplace and the sexual division that exists in trades, talking about that and preparing women to be able to face that. Then just de-mystifying the simple things that we take for granted that guys just seem to know, like finding their way around under the hood of a car or how to build things, to be able to make a safe atmosphere for the practical stuff I think is especially important. The academic stuff is – well, it's mostly the practical stuff and having that connection between the theory and the actuality that women could benefit from.

The women did really well with the math because it's basic math and it was something that everyone had seen before, they were all familiar with that. The science, I wouldn't say the women had a more difficult time than the men, it's just being able to apply it is where the problem is. Myself as a woman, going into a trade, I would want that little catch up time to the reference points that men have in general, not all men, I shouldn't take that for granted, but just spending some time with the machines you are going to work with and doing some problem solving. I am myself learning the practical stuff, I encounter that all the time. I am doing some building right now and there are so many things that I have asked my husband to do because it seems like he just knows how to do them. I have to stop myself and say "It's probably not that hard, I should probably figure out how to do it". Self confidence is a big one, 'cause it's just built into our blood to want to have a handy man around. But if you can get an atmosphere of all women so it's a safe place and learn to do those things, that's definitely necessary.

I believe the source of funding for the program we did was Advanced Ed. We advertised it through the College to the community campuses, so we worked with the co-ordinators of every campus, they were all aware that the program was happening, and were receiving students at their end. I am assuming there was some newspaper ads and talk around town. I sort of came on the scene just before the program was to begin so I wasn't involved much with the preliminary, but know that the program had run before at least twice at the College so it was a known program. This was the first time for distance, but the curriculum was there.

The entrance requirements to the program were a reading assessment, and a math assessment. We were able to look at the scores and determine whether or not the program was a good fit for a student, and inform the student, you will be able to do this course, you are at the right level. Or we might say “Your math skills are a little low, you can give it a try but you might have a difficult time with it”. So we did make those decisions, based on the scores. That worked really well to equip people at a common level for math. But the students mentioned in their feedback at the end of the course, and I noticed this throughout the course, that reading comprehension really was a weakness for some of them, and with the science concepts in particular, there was quite a bit of reading comprehension needed. We did what we could to support that, and we did talk about it as a Department, but this is not a course in reading comprehension, so we encourage students to have those skills before they come into the course, because it was enough to teach the math and the science. I have been teaching science for a while now, and there are some concepts in the curriculum that are like Grade 11 concepts.

The curriculum is pretty fantastic, it was a great curriculum to work with and it corresponded well with the Trades Entrance Exam. I created quite a bit of my own stuff too to supplement that. We used Powerpoint presentations. The trades people at the College were great, they were very helpful and great to have around. The math book that we used was fantastic, and I know that the carpentry instructor for Level 1 and Level 2 used this book for her students too, it’s a really good foundation book. Robert A Carmen, Howe, Saunders and Tom Mills, *A Guided Approach for Mathematics in the Trades*. Pearson Prentice Hall Publisher. There is a CD that goes along with the math book that some students liked for practice.

And if I had the time and the money and the support, I think this *Northwest Territories Apprenticeship Support Materials* – I think it’s time it could be re-written and revised and maybe applied across the north, that could be cool. We use those a bit. And if they wanted to delve into a women’s supplemental module to deal with some of the issues that are particular to women, that could be cool too.

We delivered the program through the Distributed Learning Department at the Yukon College. They have a delivery system that is very user friendly.

Paper resources are useful. A self directed CD would be a lower priority for the group I was dealing with, the reading comprehension was not always there, the computer skills were even less there. Working with computers requires a whole new set of knowledge and I would not want to go there for Apprenticeship Preparation, that would have to be another assessment people would have to do before entering the course. Self directed CD’s could be supplemental but then it’s there for some people and not for others, so as long as it was not something that was required, then sure, why not?

A website could be a great thing eventually for a course like this but nothing too technical.

We worked together as a tight team, I communicated daily with the instructors at the campuses, we were always working together, I had the time to devote to it, we were able to work with students individually on their issues and keep them at the forefront. If it wasn't for that, it would have been a frustrating experience for me. Especially with the group size that we dealt with, - up to 15 at one point. At one campus we had eight or nine people, at another we had six. That's fine for a traditional classroom but there is quite a level of distance that exists in a distance course. I have taught a few distance courses now, and as much as I say to my students "Call me if you have any questions", they need to have somebody on the ground that can assist them as well. I am in Whitehorse, I'm far away. There is always somebody at the community campuses there for support, that's the community campus co-ordinators, sometimes there is more than one. In this situation, the course was also coming from the campuses, so they were quite excited to have a group of people.

At one time the Women in Trades and Technology course came up in Whitehorse and I advertised it to my women students, saying this is available if it is something you want to do. But at the same time I was very aware that the reason that distance education is so great is because it provides education and people don't have to leave their homes. A lot of people in the communities don't want to come to Whitehorse because their life is there. So distance is the answer for a lot of people. It's kind of nice for women in the communities if there is a community group like what we had in Carcross and Watson. If it had been a women's only initiative it would have been a class of three and they would have been quite isolated. But in this instance, I think the barrier between men and women was overcome by the community group, so they were able to be with their neighbors, friends, family and peers in the community to do a course. I think that the distance education support overruled the sexual barrier. The sexual barrier was still there but it wasn't dominant. They were in a comfortable place to learn, so it worked for them.

So for distance, I don't know that I would recommend a women-only initiative because I think it would be a very small number at this point, it could be a limiting experience. So I think it's great to offer it in Whitehorse for those women who feel those barriers strongly and need to make that move, but it's good also to welcome women into the community circle and do it that way as well if that is how they feel comfortable. A lot of them might feel more comfortable asking one of the guys in the group how an engine works, then asking an instructor, even though we're women, because that is where their comfort lies.

I think the idea that students take science and math courses, and create sort of a general program, teaching the Apprenticeship prep then a practical component for women in Whitehorse is fantastic. It's an amazing idea. In Whitehorse, they will probably get the numbers to have a great group. In the past they have done courses for women where it's been "Try and experience different trades, see what the trades are all about, and see which one you might like", which I think is great, but to take that and add on "OK if you're serious about getting into the trades, why don't you try to get your apprenticeship out of this program?" is the next step and I think it's a great idea. I'm

super excited for that program. I think it's going to be really successful. I think that what the College has built, as far as Apprenticeship Preparation, with the population we are dealing with in the north, is amazing. It really prepares people. A lot of the guys in my course had been working, building, for 10 or 15 years, and they said "I know how to build a house but they won't give me my apprenticeship because I didn't have the basic skills". So it's great for that, it works for those guys and it also works for those who are coming in with nothing and just want to try it out.

With the practical component, everyone could see the link between the math and science skills and the practical skills. Maybe they weren't always aware of the connections, but most people going into trades have enough of a goal and determination to know where they want to be so they are willing to work through and gain the new ideas without always knowing exactly how it applies. All the science was very hands-on, it was a little bit of a challenge but it worked pretty well. We did a lot of experiments. I sent out Rubbermaid bins to every community full of science equipment and trades equipment then we do trades science experiments across the camera. I would focus in on a pulley system and tell them to build it, so we managed to keep the hands-on thing going across distance, which was pretty cool, they just had to open up their bin and get out their supplies, we did the experiment together then talked about what it meant, that was really cool. I guess when I say it was paper-based – the instructions were there, but the science was actually very hands-on. People did stuff on their own too when the cameras were off. We built motors, we worked with gears, so we did a lot of the practical stuff through the science curriculum. Those exercises have already been developed in Simone and Tom's science curriculum. They have complete lesson plans, and we added a few more.

I'm excited about where trades is going. It was an amazing opportunity for me, and it was nothing, nothing, nothing but a success, I was super proud of the people I worked with and they ended up being proud of themselves. It's really good apprenticeship preparation. I am working with young people right now and I find a lot of think "Oh I don't have a lot of schooling, I'll just go into the trades" but it's not the case. I'm even taking some of my younger students right now and saying, "OK, you want to go into trades? Look at this math book, this is the baseline of what your apprenticeship is about, there is a lot of learning but you should not be disillusioned by that".

Trades is a great place to be, and that's why I especially believe in it for people in the communities because it's a good way to go, to have a trade and live in your community and have a nice lifestyle and keep learning and keep doing things. It doesn't mean you have to move to Whitehorse, it means we need you in your community so that's where we to get to with education.

Grant Dunham
Coordinator
Distributed Learning
Box 2799, 500 College Drive
Whitehorse, Yukon, Y1A 5K4
Phone: 668-8817
Fax: 668-8814
gdunham@yukoncollege.yk.ca

We chose the term Distributed Learning because a lot of what we do here at Yukon College is not so much about distance as it is about time shifting and time constraints. When you look at the students we have enrolled in our courses, they pretty much follow the demographics of the Yukon. About 2/3 thirds of the students who register for Distributed Learning courses live in Whitehorse and 1/3 live in the communities. So it's accessing the courses delivered at Yukon College using varying types of technologies.

Distance education is a piece of it. We are doing everything from adult basic education upgrading, we generally try to stay towards the higher end of ABE type of materials, what we call College Prep, around the Grade 10 level and higher. There are a couple of reasons why we do that. Reason one is that among the students themselves, there is a certain level of academic sophistication that we like to rely on when we are doing courses by distributed learning. And when you get to the higher levels, that is when your numbers of students start to get very small and it becomes prohibitive to find the teachers who have the expertise to teach that particular subject matter in every one of our communities. So from both areas, that is why we like to go there. So to try to find a good algebra teacher in one of our communities is problematic, whereas we can find one good algebra teacher in one community and have four or five communities taking it from that one good instructor. You might only have two students in your community that want to take algebra, but by the time you add in one from here, two from there, another three from someplace else, you end up with a full class that you can actually take, so that is one of the reasons why we try to keep it up higher, whereas with basic literacy, you can put together bigger groups, you can find the teachers that can teach basic computational math or English or literacy skills much readily than you can for some of the higher ones.

So we have straight ABE courses, math, English, computer studies, some science. This year we are going to start offering APP (Apprenticeship Preparation Program) math and science for pre-apprenticeship training, that starts in about a month's time and goes for four months. We are doing another project called Math for Small Water Operators, basically for people who deliver water and don't have the math skills to be successful writing the exams. We are trying to give them some Math training to allow them to do that. So those are all an upgrading type of math and English. We're doing Biology next semester, we're doing some computer courses, both at that pre-college or high school level.

Getting into the Professional Studies area, we're teaching many of our computer application courses by distributed learning, we're teaching accounting, we call it accounting but it's really book keeping courses, we're teaching communication skills, business writing. Some of the courses in the Renewable Resource Management program. And we are going into the university transfer area, we're teaching anthropology, we've got history coming up next year, we've offered English, psychology and computer sciences in the past. So we run the gamut right from upgrading to second year level university transfer from Yukon College.

Likewise, we're bringing in courses from the University of Victoria, the instructors in Victoria using our technology to deliver to people in Carcross. We're doing a similar project with Haines Junction. We also have a student doing her PhD work with the University of Regina, she accessing University of Regina classes from here on a weekly basis. It's a PhD for crying out loud, there is a limit to what you can do, but certainly it has reduced her amount of travel a whole lot to be able to use this technology. So we got all the way up to PhD level, but the College itself is not credentialed to offer those kids of credits, so we have to be able to partner with another institution to be able to use them. So there seems to be no end from that standpoint.

We offer a fairly wide spectrum of non-credit courses too, public interest courses and workshops, I don't think there is really anything that we don't go into. We really haven't tried too hard in the area of very early literacy training, we don't seem to be going there. We are offering some language training in both French and Spanish and it seemed to work OK, but we have not tried in any native languages. Public Health and Safety, we have not done too much in that area either, I think that we could if we wanted to, we just haven't. So quite a wide range.

For pre-trades, you have to have certain pre-requisites around math and science and English, there is a whole series of pre-requisites to get into trades training, our distributed learning courses cover that area, no question about that. Then again it depends on the trade what the pre-requisites are, so there is a wide range of courses that we can offer in those areas.

Anybody can access these courses. We have actually expanded. Normally we have community campuses situated around the communities in the Territory. It has generally been that we have a campus any place that has a year round population of 100 people or more. The cut off is someplace around Beaver Creek and Burwash, we do not have campuses in either of those places, or Liard or Stuart Crossing. But we have implemented some technologies in those communities that allow us to deliver courses and support students in those communities. It's quite a nice partnership. There is usually somebody in the community, in the case of Burwash and Beaver Creek it was the Liard First Nation. We buy the equipment, we provide the training, they provide the room, they provide the bandwidth that we need to use, the students pay the tuition and buy the books and classes happen, courses go on. We have been very lucky and pretty successful in that kind of endeavour. It's relatively new, but it's opening doors, it's creating opportunities, whether or not people accept the opportunities and go for it.

We had a very successful program at Burwash Landing a few years ago, in Resource Management. Three people registered and two of them completed with very good marks, they did very well, were very good students. The last time we tried the Water Math, it was not as successful. But people were exposed to it, and we know it can work.

We also have gone into places like Atlin and Deese Lake, outside of the Yukon jurisdiction, in collaboration with Northern Lights College to start to work on those areas. So we're trying to help out in those areas, not trying to take over but making sure that the technology and infrastructure is in place to allow students the opportunity to take training. Whether they take it from Yukon College or the University of Victoria or the University of Regina or wherever, that's a different story. We are not prescribing where they take these courses from but we are trying to get the infrastructure there to allow people to get involved. The theory is of course that if we get the infrastructure in place, some of the traffic will come towards us and our courses. Not all of it will, but some of it will perhaps.

Once the infrastructure is in place, any community organization, theoretically, can use it to deliver a program. However, it becomes so much easier if you can put a Yukon College stamp on it. I'm not here to prescribe what the content is but it's really beneficial if it's got that stamp, if it's Yukon College, it's simple, we just support it. If it's an outside organization – we've done some, Emergency Measures Organization, and Mothers Against Drunk Driving, - it is their course, they just rent our facilities. My position is that I am not here to double charge what the taxpayers have already paid for. The taxpayer has already paid for the equipment, the taxpayer has already rented the rooms, the taxpayer is already paying the leases on the bandwidth, so I am not trying to charge more for that, but we do need to cover out-of-pocket money so when outside organizations come in, we try to hire people to help support people in the communities, try to ensure the technology works, make sure there is support there, keep the doors open. So we do try to recover the costs of having those people in the communities looking after the facilities.

So our official rate is \$45 an hour to do a videoconferencing session, I generally end up paring away at that a fair bit, if we're hiring people we're usually looking at \$25 an hour per participant which disappears if somehow we get that Yukon College stamp on it.

Where we don't have a campus we usually partner with another organization. It's usually First Nations. In Beaver Creek it's Light River, in Burwash it's Kluane, in Liard it was Liard. I am just in the process now of implementing a facility with Kwanlan Dun also. It's their facility, it's their offices, we'll put the equipment in, Yukon College buys the equipment, the First Nations have provided the facility, the rooms, the floors, the walls. Tables and chairs we'll buy but generally speaking we don't have to, there are usually tables and chairs around, we generally don't have to worry too much about those kinds of things. And we deliver the courses. So besides the square footage, they have the on-going costs of the connection, the ADSL service or whatever service they get in there.

The two we did in BC, Deese Lake and Atlin installations are partnered with Telesat Canada and Canary Canada. We actually used satellite feeds to serve those two communities. It's still in the experimental stages, but I think the experiment is done, but we know it works, we've implemented it, we know much it costs, it's all done, now it's time to move forward. With that one there is no monthly charge for the band, if we can work out the details with Ottawa, that one should be no charge. There is a little higher installation cost, but once it's in, it's done, it's accessible anywhere in Canada. We're trying to find the right places and the right rules to make that work. Our connection to Old Crow is through the Northwest Tel satellite.

If a person wants to access one of our courses from home, they would do it through their own service provider. Or they can come into a College facility. Those are the two options, they can access from home or through the College. If they access through the College, we have contracts through Yukon Territorial Government for very good bandwidth for all of our campuses that makes it work for us. So at our campuses, we have video conference, we have computers, we have fairly good labs. The computers in our computer labs are never more than four years old, they are refreshed fairly regularly. The learning environment, tables, chairs, fax machines, printers, scanners, the stuff that we use to work with in an on going basis. So it's all set up, the software's installed, it works. Whereas if you're at home, you've got to slug through those sorts of things. It is possible, we have quite a few students who do it from home, but a lot of people just come in to work at our campuses.

We have never linked with a worksite, although some of our campuses have in some ways. The whole experiment at Atlin and Dees Lake is an example of what we can do, we know we can do it, we just have never done it. It's doable. We did do some on-site training around Carmacs about ten years ago, but that wasn't using technology, we had a trailer there that was used for on-site training.

We use almost any software that will work. The piece that seems to be getting the most attention around Yukon College is our video conferencing system. It's live, it's interactive, teachers like it, students like it, it's like a regular classroom but you're doing it through the TV set. We're probably offering a little over 50 hours a week of classes that anybody in the Territory can access. Starting in November, that will probably increase to about 65 hours a week.

We also use web pages for displaying content, lecture notes, notices, discussion forums. The particular piece that most of our teachers use is called Frontier Manila. That just happens to be the name of the thing we put on the server to make it work. The key there is the instructors and students have to be able to find a way to post to that website easily without a lot of impediments, without a lot of hurdles to overcome. With this piece of software, if you can remember your email address, you can do it. That is the biggest hurdle. That's why we like it.

Other people have used things like Moodle. There is a bit of Drupal going on inside the Yukon College. That's the kind of software we use for the web. We have used Google docs, Buzzword, some of those collaborative type of document sharing for students so people who are writing essays or working on written materials will have them set up on Goggle doc and work that way.

We use Web Distributed Authoring and Versioning WebDAV. That allows teachers to put materials up for students to download and print them off, it's a delivery mechanism rather than putting your documents in an envelope and mailing it, this gets them out there much faster.

We have a thing here we use that used to be called Macromedia Breeze, but now it's called Adobe Connect. This is a webinar, webex, online seminar kind of software. It's very good, it's got voice over IP, it'll do video cameras over IP, it's got sharing desktops, it's got polling capability, text chatting. It's got a lot of capabilities that we quite like. I like it, and the people around me like it.

We use video, we produce our own videos, record and edit them put them on the website in some kind of a quick time format for people to download.

We use a thing called Connect to capture screens.

I have a poster in my office saying "The greatest challenge in life is doing things people say you can't do." So I like it when people come in and say "This is what I'd like to be able to do". Then we roll up our sleeves and try to find options that we think that people can use that they can use to get things done without having to be a geek. We've done a lot of that. So when we look at what we can do, we look at the problem and try to find something that will match. We're cheap, we try to find the least expensive ones, we try to find the things that are on the web that are free and so on. There are a couple of reasons why we like to do that. One is because we don't have money to spend. The other is that neither do the teachers and students who are learning. If they can learn how to use this piece of software or learn how to do something this way in a class, they may actually take out into their employment area later on without having to go down to Staples and spend \$500 for a piece of software to do something that is way more than they need. So that is the kind of thing we are trying to encourage to happen. It's partly economics, but there are some better motives there too.

When I install the video conferencing equipment in a community, I give them a quick demonstration, enough to get them started, then we use video conferencing to continue to train them. We try to address the questions as they arise, as they come up, we provide the training. One of the people I work with, Sylvia Reasoner, puts on what she calls "Trying New Technologies", or TNT, and "Lunch and Learns", she will bring in people to give them an hour a week to try new technology, walk them through, see how they're using it. Where the people have the time to devote an hour a week to that kind of training, it's been very good, very successful. We have some locations that are really quite good, they've learned a lot and can really help the students. The problem always

is to find that extra hour. There are some locations, it would be about split I would expect, that just do not have the hour, or didn't make it a priority, I'm not sure of the reasons. That group is more done on an ad hoc basis. The way we work is that we put people into technology, we are there as long as you as the student or teacher need us and not a second longer. We try our best to extract ourselves from the class as quickly as we can. Sometimes we leave people a little bit nervous because we're going out the door and talking in the hallway, but we do that on purpose to try to get the teachers and the students to start using it. So now, this is a month in now and we have three brand new people using some of our video conferencing. We're nowhere to be seen. We have a class starting up in Haines Junction tomorrow, they're going to take a bit more support. The students have a telephone number to call us if they're having technical problems. We're small. We've got the luxury to be able to do it. When I say we don't put on the big workshops for students or teachers, well we had three new teachers this year. Why would we put on a workshop for three teachers when we can give individual attention to three people?

Some of our courses will end up by the end of the year having 200 or 250 students but out of that group you may only have to work with 20 or 25 over the course of a year. Just one here, one there. You give that extra attention and help them out. Whereas at UBC, you might have 250 trouble tickets in a week would not be unusual, whereas that would be what we might see in a year. It just is not fair to compare the two together. We're lucky, we know we're small, so we try to use that to our advantage by giving individual attention.

There have been a couple of big challenges offering distributed learning in the Yukon. One is technological barriers, you have trouble trying to find the bandwidth into locations, and that's always going to be a problem and an issue. Those are engineering problems that you can find solutions to. You've got enough money, you've got enough time, you can find solutions to an engineering problem. We've had to work hard to find some of those, they have not come easy. But given enough time and determination, it's all about putting the infrastructure in, finding the satellite dishes, trying to find solutions.

The second challenge is more attitudinal issues, there is a hesitance to do courses by distributed methods, I think it stems from old days of correspondence courses which were usually fairly expensive in tuition and gave very little in return from a student standpoint. There has been reluctance, there has been a fear of the technology. All you can do is just keep plugging on the attitudinal areas, just keep showing people that it's not that hard, let the people who are the front runners, the cutting edge folks take the remote controls, they will help each other out on the computers, giving the one on one attention. Understanding that it is frightening and that's OK, there are no dumb questions. It's kind of interesting, we have students who entered very reluctantly, and didn't think that they wanted to, but this was the only way they could take the course they needed to get the credit they wanted. The next year, they come up with an option to either take a distributed learning course or take a classroom course, and they take the distributed learning course. They understood that they suited this sort of bare lifestyle better than the classroom courses. We've been at this now for ten years and as

more people get through a distributed learning course, the word spreads, the fear is reduced. We still have the anxiety. I've taught in regular classrooms, anxieties are everywhere, it's a scary thing to do, to go to school.

Some of the young kids coming in now would put you to shame. I'm in charge of distributed learning and they're doing things - its hard, I'm still trying to get my head around Facebook and Bebo, there is something good going on there, I just don't know what it is yet, I haven't figured it out. I understand from a social standpoint what they are doing. But there's got to be something for classrooms, because today's kids are not afraid of technology, how can I feed my materials and let Facebook or Bebo consume it for students, that's our challenge. We'll figure that one out in the non-too-distant future. Any body under 25 has no problems at all. 25 – 30 they're usually pretty good, 35 – 40 there is more reluctance, but over 40 and beyond are the group of people who are usually pretty nervous. But for the younger groups, there's just nothing to it.

The young are the group of people who will want to learn this way in the future, because they don't have the time. They are out there working already, they are not going to quit working to go to a classroom for a year. They are going to continue to go to classrooms to learn but where and from whom and how? It's going to be an interesting time. After I'm long gone, but these people are going to be fun to watch.

The materials you would use for teaching a course by distributed learning would depend on the learning objectives that you're trying to meet. Generally speaking, in education 101 courses, ya gotta go through the theory, ya gotta understand this is what it is, this what we are trying to learn. That is usually text based, Powerpoint with audio included in it, a pod cast, some kind of a videocast, something along those lines to tee up the course. The you have to demonstrate the hands-on skills they need. You can use videotapes, you can do screen captures, you can do videoconferencing live sessions where people can stop you and ask questions. Then you've got to give the students the opportunity to practice it in some safe and secure fashion.

For an English or math class you could have them typing in fill in the blanks, or re-arranging sentences, automated answers, you can have simulations where you can move things around and so on. When it gets to the trades it gets more difficult. That is where videoconferencing is good, the instructor can actually watch what the student is doing and can make sure that it is done in a safe fashion.

The final piece is the evaluation process, you've got to somehow evaluate learning. Sometimes it's written, sometimes it's practical, I have to watch you do something, I don't think there is a good fit for everything across the board, but you have to understand who your students are and how they are reacting. A good teacher is always renewing their materials, trying new things on. I know people who have taught the same things for eight years. In the first year, they start something, in the second year, they modify, by the third and fourth year they've got it pretty well down. A good teacher is always taking about 20% of their content and re-arranging it. "What would happen if I did this first and this second?" Or, "That worked last year, but I wonder if I can get a

video that would make the point a little bit better, or can I do it with a simulation? Maybe I'll go to a lab and do a lab experiment, maybe that would work better". That's what a good teacher does, they are always trying to find the best way, and they don't always succeed. They try to take the best and make it better every year. We have pretty good teachers here, they are always trying to make their courses a little bit better all the time. What works this year might not work next year. I might have a group of students who are really good with text based materials, next year it's all video. You don't always get that kind of a clear cut distinction but what works for this student may not work for the one next door. So you need a variety. You want to make sure that the person who likes texts can read them, and the person who likes to watch a video can watch and listen at the same time. That's one of the nice things about technology, you don't have to do both, you can pick this or that or something else, whatever way works for you. It allows you the flexibility to pick what's best for you. So having a greater variety of the types of materials on hand is the advice I would give out. The same principles as with classroom teaching. There's not a lot of difference. There are some differences but there are a lot of similarities. A good teacher is a good teacher.

When I first started this ten years ago, somebody asked me about distance learning. I said "You take a really good teacher, and put them in front of a group of students, and magic happens, whether you put them in front of students in a classroom, or you put them in front of students on the web. Magic happens when you take a good teacher and interested students. Sometimes you get students who are just taking the course for credit and don't have much enthusiasm, and that's hard for teachers to do something with. But a lot of good things can happen in a quick hurry if you've got interest and good teaching. It's cool.

One of the problems that a community organization would have trying to deliver pre-trades training by distance education would be trying to find the economics behind it. In a lot of our communities, the numbers of people are small. When we offer the Pre-Apprenticeship Preparation Program, we don't have hardly enough with guys and women so to try to do it for just women alone becomes problematic for me. So they have to look around and find others and get networking. But not just inside the territory, I think you could have trouble putting together a good group of people. You could open the door up across the country at this point in time using technology. You can put together economically feasible classes meeting that target group and curriculum.

The other thing is – find good teachers. You can find the interested students by expanding your market and looking further afield. There is no reason why you can't go to northern BC or NWT. There might be some time differences to go to Nunavut, that is one of the challenges. But to my way of thinking there is no reason why you can't have the NWT, the Yukon, northern Saskatchewan, northern Alberta, and northern BC. In that catchment area, which is pretty widely dispersed, you should be able to find enough students so you can offer the type of programming you are looking for. Maybe not, but that would be where I would start looking. Then you would have enough to go get the good teachers. Don't let anything stop you from finding the best if you are going to make this thing work. They can be great in the classroom, they all work in distributive learning,

I'm not worried about that part. Find the good teachers and things will happen from there. There are good teachers. You've got the opportunity in that catchment area to find some exceptionally good, strong, strong teachers.

Yukon College has a distributive marketing process that is in the process of being changed quite dramatically. But at the present moment, for example for the Apprenticeship Prep Program out of Developmental Studies, they will advertise mainly to Whitehorse audiences, newspapers, radio stations, rolling ads. Then we here will again promote them in the newspapers, but we send notices to all First Nations offices by email and by fax, and to our community campuses, who then put up posters around the communities, some of the communities have newsletters. So when we hear about a course, we advertise not only through the traditional areas, we also do the emails, and faxes to our contacts, the web sites, and the community campuses themselves do their thing too. There are so many different players, everyone has a little piece of it. Once the word gets into Teslin, what is going to work is the poster going up by the post office with our co-ordinator there going up to the First Nations education liaison offer and saying "We're offering this course, do you have anybody who's interested?" Send out all the emails and all the faxes and all the notices – is that's person taking the poster around "Can I put this in your office, you guys may be really interested – that's what does it.

The way we decide what courses to go forward with is that communities will ask us, they will tell us what they want, then we will make a decision to fund the course and offer it. There are some others that just have to be offered, we don't have any choice in the matter. We're going to offer a home workers program here next year. We have a lot of people who would be great at that, but they need the pre-requisite skills, the English, the math and the science. If we're going to give people access to the program, we have to get the pre-requisites out of the way. So, some courses we don't have any choice in. Some courses we've done them in the past, sometimes historical things happen that way.

Once we've made the decision to offer a course, enrollments really flow from the communities. Sometimes communities say "We *want* this course" so we offer it, then the enrollments don't come. We've seen that happen, and that's OK, we just carry on and do it. Then there are others we offer where the enrollments do come in. If we're going to use scarce resources like videoconferencing, we have only one of those pieces of equipment in each campus, so we can have only one course going at a time. Suppose we had two English courses that we could offer by videoconference, the community will have to decide between English A or English B. They can't take both. So we say we will offer both English courses, and then it's first come, first served. It's the same thing when we try to juggle a video conferencing schedule, we try to schedule people into the right time periods, it's first come first served, we try to get everybody in and make sure it all works. So first past the post wins. Sometimes the decision is made on the basis of demand. There is no one size fits all when it comes to the Yukon.

There are two big schools of thought here, neither is right and neither is wrong. One is – you've just got to roll up your sleeves and get at it. In some ways that works. That is

some of what I do, I get hooked on something and just stubbornly push it ahead. Until it starts being delivered, it can just stall on you. You can spend all your time on development if you don't just get at it. So part of me says "Just get out there and get started". The other thing is – you want to have something to start with that has some quality behind it. I've been lucky here. The people I work with are good teachers, they take their jobs really seriously so when I push them to get started, they generally work night and day to put together reasonable material, for the most our materials are pretty good. But you've got to do that balancing act. The product doesn't have to be perfect the first time out. Make it as good as you can, make it good, but get something out the door. It will never be perfect, you will always be fine tuning, you will always be changing. So, the first time out, just get started on something then go from there.

Heather Dundas
Coordinator - Innovators in the Schools Program
Northern Research Institute
Yukon College
Box 2799, 500 College Drive
Whitehorse, Yukon, Y1A 5K4
Phone: 668-8739
Fax: 668-8805
hdundas@yukoncollege.yk.ca

The core goal of the **Innovators in the Schools (IITS)** program at Yukon College is to engage Yukon K-12 students and teachers with science and technology resources. Teachers make requests for experts to visit the classroom or lead a field trip in areas such as geology, biology, medicine, engineering or astronomy.

The model of having a scientist or technologist share their expertise in an interactive and hands-on way has been very successful. Teachers use the program to enhance their curriculum needs. All of the scientists and technologists are volunteers and/or work sponsored volunteers.

The **IITS** program has been in the Yukon for over 15 years. Teachers receive an annual newsletter which contains a request form; there is a new teacher's package; each school has a school science contact that we work with; and we present at most Yukon Teachers Association conferences. Our website (<http://dl1.yukoncollege.yk.ca/innovators/>) has been improved and is starting to function as a place to go for science outreach information. There is ample opportunity either for a teacher to get in touch to ask for a resource person and for scientists and trades people to volunteer to go into the classrooms. For example, last spring the Beringia Centre wanted to go into classrooms to talk about their work, archeology and the science during Beringia. We helped them develop a one or two page info package that went out to the schools, assisted in bookings and provided a feedback service.

The **IITS** program is funded from a number of sources. The coordinator position is now core funded at the College. The part time assistant has been funded by NSERC Promo Science. In addition, a sponsorship campaign is done each year.

IITS is part of the Actua national network of 28 colleges and universities in Canada who have youth science outreach programs. The Actua network supports its' membership with annual conferences, on-line resources and member funds. For example, **IITS** has received financial support to develop a Girls' Science Club for Grades 3-6 girls. The girls will have mentors at each club meeting and there will be field trip visits to science and technology work places. **IITS** has received training to run a "Science with Impact, Strategies for Engaging Youth for Scientists, Engineers and Technology Professionals" program. The two member magazines are "Know" for ages six – nine and "Yes" for ages nine – fourteen. Actua has a great wealth of resources for members.

The Developmental Studies division at Yukon College has run summer science and computer camps for the past couple of years. They are gearing up for another season of camps.

IITS works with Women in Trades and Technology (WITT). The coordinator, Betty Irwin is one of our Innovator volunteers that go into the classroom – she does an electronics program. Her message of "females in the trades" reaches both girls and boys when she visits a school. She was recently one of a group of Innovator volunteers who did a workshop at the Teachers' Conference for K – 7.

For a number of years **IITS** has worked with the City to run a program called "Crazy About Science" for six –nine and nine – twelve year olds on Saturdays at Yukon College. It's not so much a club as themed activities. It's usually four Saturdays in the fall term, and four in the winter/spring. One of the Saturday topics is called "Making it Work" and it focuses on pulleys and levers with a trades angle.

IITS will be working with a "Biotechnology Outreach to the North" program from St. Lawrence College in Kingston, Ontario. The program exposes teachers to training kits that focus on biotechnology careers.

IITS is hoping to expand the "First Contact" program that was based on the "Opening the Doors" program in BC. Experts working in a variety of fields (science, trades, arts, etc.) will work with Grades 10 – 12 students in a hands-on mentoring event. A facilitator will guide the session and provide support for the process. The students will learn how to shake hands, make eye contact and most importantly ask questions about careers.

IITS works with the Yukon Science Institute lectures to support their public lecture series. Visiting researchers are booked into the school system by **IITS**.

Every school presentation that is arranged by **IITS** has a feedback loop. Teachers are asked: what was the interaction like, how effective was it, how enthusiastic, how appropriate, relevant to the curriculum and would you recommend it to other teachers

and why. Students are asked: whether they liked it, understood it, and have an increased interest in science. Presenters are asked: how they felt it went and if the students and teachers were prepared.

IITS partners with the Association of Professional Engineers of Yukon to host an annual bridge building competition. Engineers give classroom visits to promote the competition and engineering. The bridge building categories are in Grades 4 – 12 and an OPEN class (which can involve a family or a member of the public). Up to four people can work on one bridge.

IITS works with the Regional Science Fair committee to host the Yukon/Stikine Regional Science Fair each year. Up to three winners (in Grades 7 – 12) are sent to the Canada-wide Regional Science Fair. There have been some trades related projects coming out of the science fairs. We're very careful as a group not to be directing students to project topics just because there's money involved. I think as a group we are hoping to provide a balanced list of special prizes; so that students would know that whatever area they are interested in, there is extra special prize money involved.

IITS has worked with trades and technology presenters, but they can be constrained by the market place. They say "You cannot pay me enough to walk away from my business to do a presentation". Trades people are similar to artists, in that they are often outside of governmental, whereas scientists are more likely to work for government. Skills Canada Yukon has for the most part stayed out of the classroom, they have a stand-alone skills centre, where youth come after school and on weekends. With the **IITS** approach in the classroom you're getting everybody (they are not being pre-selected). Some child – somewhere – might just get sparked by a plumber's presentation! The support of classroom kits would be a helpful component.

Remember, a strategy for success is to build partnerships. Make sure you know what your audience is really interested in. If you are trying to work in the schools make sure you have consistent liaisons at each school; make sure the schools are aware of you; don't send too much paper; don't overwhelm the school; make connections; and don't re-invent the wheel (adapt other programs).

Janet Lee
Project Manager – Yukon Mine Training Association
3151 C – 3rd Avenue
Whitehorse, Yukon, Y1A 1G1
Phone: 633-6463
Fax: 633-2605
janet@yukonminetraining.com

The Yukon Mine Training Association is a partnership between the mining industry and first nations, that is intended to develop a skilled workforce in the Yukon, to realize

opportunities from mining and resource related activities. We provide direct financial assistance for training and will also potentially undertake programs ourselves and deliver them, and we are also involved with awareness as well. And we work on developing updated program standards and core competencies for mining related occupations.

The Mine Training Society initiative started about three years ago when Cantung was opening and there weren't enough people here to acquire jobs there so they had to hire from outside. And so we undertook a plan to look at mine training in a center. What came out was that the communities wanted it in the communities, industry wanted it on sites, so a center wasn't deemed feasible. But the partnership grew from there. It was formed as an association last year. It didn't really get going because the funding never really came into place this spring when we confirmed some of the funding. I took over project management in August.

We have \$1 million from the Northern Strategy, we have been approved for another million from the Targeted Investment Program (TIP) from INAC. We have \$¼ million from the Training Trust Fund from Advanced Ed. We have \$853,000 from the WCB and we just submitted a \$10 million application to the Aboriginal Skills and Employment Fund, it's Service Canada. We are working with EMR right now to look at some additional dollars within the Yukon.

All of the aboriginal organizations in the Yukon and northern BC are involved with the Mine Training Association. At ROUNDUP, which is a mining conference in Vancouver that we went to two years ago, to I met with all of the mining industry that was in the Yukon and northern BC and all the chiefs, and they all endorsed this. We have a ten person board. It's a non-political board, so we don't offer a seat to each first nation, but the first nations on the board represent the broader interests.

There are not any mine training programs specifically for women, but women have been involved in our training. Our training is always evolving as projects develop. As soon as ADANAC Molly receives an environmental permit, everything changes. There are four phases of mining, there is exploration, development/construction, production and reclamation/closure. You can be in exploration, and the drill results are good, and then you have to go get financing to get your permits, then it just stays in that stage until you get your environmental permit. Then all of a sudden your money can get secured and then boom, you switch into development, which changes the whole dynamic of the site and the occupations required. And you don't know how that's going to work, depending on investment and process for government. So it's "Hurry up and wait" then as soon as it happens, it's over night change, which is hard on communities.

We funded six pilot projects this summer, we trained 50 people, about 35 of them are still working. Everything we do is open to all Yukoners. The Aboriginal Skills and Employment funding will just be for aboriginal people but there is a strong focus on youth and women.

Sadly, the Yukon Mine Training Society did not do a very good job of promoting our training until this summer. Now we have a quarterly newsletter and weekly press releases. We are doing a research project. There is a national labour shortage in the mining sector in general so we have contracted to do an awareness strategy. The first stage of the work, a situational analysis, is done, which looks at what the labour shortage is, how people are learning about jobs. What we learned is that in the Yukon, there really isn't a place where people can learn about training or the employment opportunities, learn about the skill requirements for the employment opportunities. So we are doing an awareness strategy which will then start promoting training for employment opportunities and skill requirements. We are doing a research project right now on the occupational requirements in the four stages of mining.

So we will produce a document that is user friendly, in hard copy and on the website, where you can look and see all the different jobs that come in different stages of mining and click on it. Here's the job description, the set of skills, wage scale, so people at least see the opportunities. And not just direct employment, but also indirect, service related work.

Then within the Aboriginal Skill and Employment Program, we'll have a mentoring program and a champions program. So we are doing a research project right now to find a number of champions so people that have either lived in a mining town or worked at a mine in the Yukon like Faro or Clinton Creek and what happened to them, where did they go, how did it impact the Yukon from them being there. We have to find people who can see themselves in the champions so it has to be women and youth and first nations people and middle aged white men. They all have to be represented. That will be used to help people see the career paths at come out of entering a specific occupation, or a non-specific occupation in mining. It is identified as a priority to have everybody see themselves.

There are a lot of visual strategies. The mining companies are looking to diversify the workplace. They have a strong interest in women in the workplace. They find that women are better on the equipment, they are more sensitive to the equipment, they have less down time, fewer mechanical problems. So there is a strong desire to see more women. There are also issues in a mining camp with a small number of women in camp life, it makes it really hard on the men and the women so they need to get to a critical mass. I know I spent six months last year working with Sherwood Copper. I spent about 50% of that time on site, I was one of four to six women out of 100 in camp. It's very difficult when there are so few. There is one washroom for us, and one shower for us. So it made it very unappealing. So there's got to be a greater push to get more numbers. Then camp life gets a little easier when there's more women as well. I found I spent a lot of time either working or in my room.

The Board of the Mine Training Society has been told by the stakeholders that their preference is to see training in the communities, or on site. And it has to be for guaranteed jobs. We will not provide dollars for training if it isn't for a job that exists. So if you want to become a diamond polisher, that's nice, but there's no diamond polisher

jobs, however there are mill processing jobs. This came as a big push from the first nations – a lot of people don't like leaving the territory. So they want wherever possible those training opportunities in the community. So a lot of what we are doing is trying to find those tools so they don't have to leave. Some of it is on-site, some is in the community, some of it will be distance learning. The other challenge we have is that you need a journeyman ticket to have apprentices, and there aren't enough journeymen. So we need to work with Advanced Ed to increase the number of apprentices a journeyman can take.

A lot of it is just that awareness, we don't actually do the programs but we help allow them to happen.

To qualify for funding from the Mine Training Association, a project has to be community focused, and work has to come out of it. We don't want to say job guarantees, because the person might not have the right aptitude in training that an employer is looking for. But if you finish the training and show the right aptitude, there has to be a job there for you. That is the big one. People are tired of training for no job at the end of it. A lot of it is to push people out of entry level. We don't want to be training people in just basic entry level tickets like WHYMIS then see them sit there for another year while other people are gaining the opportunities. So that career path is important as well.

There is a huge shortage of workers and abundant opportunity so you can pretty much write your own ticket. There is a need all across Canada. The jurisdictions are all working to make sure skills are transferrable. You don't have to stay with a trade, you can emerge from it into other career paths but a trade is an excellent opportunity to have sustainable employment.

Literacy and math are huge problems, so people need to think about those upgrades in addition to the course work. There has got to be ways to help people acquire those skills, this is stuff that we work on. It's a huge First Nations issue. We are trying to look at ways to look at prior learning and use more oral and visual as opposed to the written, as soon as you put a written test in front of people, they freeze up. So how can we develop some different types of assessment tools to be used indirect training.

The chiefs have told us that wherever possible, they want technical based training, computer based training. There are some really interesting tools out there. I was in Yellowknife in an underground simulator that teaches the skills to operate eight pieces of underground mining equipment, it's all visual, it's all actual. But before getting to learning those skills, you need the knowledge. There is a lot of computer based training that can be offered, over the web, or by CD. The chiefs have asked for more of these types of tools so that their people are getting the knowledge they need but they are also getting access to computer based technology. That's a big one. We are trying through our funding to get the infrastructure in the communities to be able to use these approaches. For example, you can have a mobile computer lab that you bring in. The software costs about \$25,000 a piece to do something like heavy equipment operator

above ground. Then on the computer they can learn everything then turn around and take the mine simulator type of training tool.

A number of jurisdictions have simulators, there is a lot in the industry. There is a huge shortage of trainers, so they have had to switch to as much software based training as possible. What has happened is that anyone who had any specific knowledge of a trade or skill was snapped up by the oil sands. So all the colleges lost all their instructors. They are all getting paid two or three times as much working in the oil fields. So there had to be a big shift to self learning through technology. Any technology placed in a community would probably be in partnership with the College. Or the Federation of Labour is doing a lot of work on trades. We would qualify training providers through accreditation then they would have access to the funds.

We all have to work together. If you are going off in isolation to do this, or you're not doing it as part of the broader picture, it's really hard to manage. I think we need to look at pre-trades training, we need to look at training women and men. I sometime get frustrated when we only focus on one group. I know there needs to be more women in trades, I know there needs to be more women in mining, but if we keep it off separate, I don't know if we're serving the needs well. Just my personal opinion on that. Because women are so in demand. So they need some focus, but it needs to be still connected with the bigger picture. It's not so much the integration of men and women in training, it's the collective effort. I think there are some issues where women aren't necessarily comfortable being integrated fully, especially in the beginning. So they need to increase their comfort level by having some separate type of training, but it's got to be slowly merged in. I have to acknowledge there are a lot of women who are not comfortable with that but they are going to have to eventually, so there has got to be that integration.

The labour market shortages are so big, I think there is a lot of funding available out there to put more focus on both trades and on women and youth and I think the strength of that position needs to be recognized. I find that with my board even, because I am so immersed in what is going on, they don't realize the power that this type of initiative has. So don't underestimate the strong position that groups like Women in Trades are in to further those opportunities for women.

And deal with day care and family support. It's a huge problem with restricting women's ability in the workplace. When they are off at camps they need family support services to help with problems at home especially with the two week in – two week out models for camps, it's not good for family life and if something comes up you have to choose between leaving your employment or abandoning your family. I think those types of issues, especially for women, really have to be addressed.

We are trying through our funding to provide community support workers that can help. I was up at camp when a lady got a phone call, she was up at camp, she has teenagers, there was a party at her house and there was drinking, so all of a sudden, she's stressed, she's unable to focus at work, she wants to leave site, she risks her job by

leaving site. I think there needs to be understanding in the workplace to leave and deal with that, but it's not that simple when it's a two hour flight. It's easier when it's a half an hour drive. But community support workers that can go and check in, get the real story, take care of some of the problems, then work with the person on-site to try to determine if they really do need to come home if it really is serious, or is it just a bunch of teenagers acting up because Mom was away? Which is going to happen if you go out on a Friday. So that's how we are trying to deal with it. There's lessons you can learn from other jurisdictions that are further ahead, like NWT. It is a big issue.

There is no capacity for families on site, there are huge safety issues, camp restrictions for space. Companies need to be profitable in order to operate. So as soon as you start expanding, you are ruining their viability with their stakeholders, their shareholders. Some of the smaller properties, such as Placer, they have family, but the camp life is not for everybody. I think that women need to go to site to get the training to see what it's about, see if it's for them or not. If I had a two year old, I would not go to work at a mine. Then there's other places you can work. If I had a 16 year old, I might. A lot of it is that career counseling, that is another type of support. What they could and should consider with families. I don't think that having a young family has to be restrictive, it just means you have to make different choices.

John Gryba
A/Director - Apprenticeship, Trades Certification and Training Programs
Yukon Territorial Government
Phone: 667-5133
Fax: 667-8555
john.gryba@gov.yk.ca

I am wearing two hats right now, our director retired so I am carrying his responsibilities, plus my normal job is Senior Industrial Training Consultant for the Apprenticeship Trades Certification and Training Programs Unit in Advanced Education. My own background, besides a B Ed, I am a millwright by trade and have been in the Yukon since 1981. Part of our duties, and my specific responsibilities, are the Interprovincial Red Seal program. That is a large part of my work as well. Our unit is responsible for the training and certification of apprentices in 48 different occupations. We have about 365 apprentices at this point practicing in around 30 trades. I don't actually have the number of women we have in the trades right now.

Our system is relatively small. At the last meeting I was at, I told them we have around 59,650 fewer apprentices than Alberta has, so relatively small, but we offer the full range of apprenticeship in terms of people being able to complete an apprenticeship that is recognized anywhere in Canada and complete the Red Seal certification as well in applicable trades. Because of our small size, we only offer in-school training for

apprentices in two occupations, carpentry, and three out of the four levels in electrical in Whitehorse.

All the rest of our apprentices attend their in-school training down in Alberta or in some cases in a few occupations, in BC or in Nova Scotia. Most of our apprentices attend through Alberta training, or our in-school training that we offer in the Yukon is based on Alberta curriculum. NAIT, SAIT, Grande Prairie, MacMurray, anywhere in the system. In the Alberta system, which is a little different than BC, the curriculum is common throughout all the colleges and their final examination at the end of each year is a common exam. So somebody could go from here into the Alberta system and pop right in with full credit and everything because it is exactly the same as they would have gotten in Alberta. Or vice versa.

So that's a bit of a snapshot of trades training in the Yukon.

We support the Women in Trades and Technology (WITT) Yukon. They deliver programs for women, so we don't do a specific delivery for girls or women outside of that scope. For example, the course that is going to be delivered March to June at Yukon College, we are in discussions in determining curriculum and scope, we have assisted in that way. Then of course, we provide the funding for WITT to do that. We have put our two cents worth in, maybe our 50 cents worth in, in terms of what we feel is important in order to prepare women and girls to enter trades training.

We also support the Girls Exploring Trades Conference for Grade 8. Also, Advanced Education had initiated Girls Exploring Trades summer camps. That is a one week program where they build go carts. We just started contracting Skills Canada in recent years to deliver that. There is a girls, then boys, then a mixed camp I believe. We initiated that delivery back in 1994 based on work that Saskatchewan had done at that time. Advanced Education is both a funder of these initiatives, plus a resource for how they are set up. Up to a few years ago, we also delivered the Girls Exploring Trades summer camps, until we decided it was more appropriate to fund Skills Canada to deliver it on our behalf. We had instructors from Yukon College and from outside the College. We initiated the program and then later we hired summer students that delivered the program.

We work very closely with the College in terms of their pre-employment or trades preparation programs. Those are not targeted at women only. We also provide the curriculum for those programs because they are credited towards apprenticeship. There was a program called Apprenticeship preparation which we asked the College to develop for us. We funded the development and the initial implementation and we still provide some funding for the distance portion of it now. The College's Developmental Studies Department does that.

So we support specific programs for girls or women or have initiated the programs and have somebody else do the hard work now.

We have to have people who are ready to work in the trades. What makes programs for girls and women work? Success for girls in the school system is based primarily on the enthusiasm of the presenters and the kind of messages that come across. Success in a trades preparation program comes not only from the enthusiasm of the people presenting, but also looking at the most appropriate clientele, those that are actually ready to work. If we are actually talking about preparation for trades, they will be for people who already have some work history and have the ability to proceed into the type of work that you find in trades, either shop work or construction work or whatever. That is one of the things that would point towards success. The other thing is to provide the skills that actually would lead to entry into the trades. That is one of the issues that came up, using Apprenticeship Preparation math and science to prepare women who may have had a poor academic background and were not academically prepared to enter a trade and provide them an application based approach to math and science that is related to the trades and not some traditional academic upgrading that took you through math steps or science steps. I think those two things help prepare women to actually start working in the trades in terms of work and academic preparedness, those are the two indicators that I would say would lead to success.

It is our expectation that students be able to complete the Trades entrance exam at the end of those courses. That gives a realistic picture. “I like the idea of carpentry but I don’t want to do anything with schooling” – that’s not a realistic introduction of women into trades. That’s a hobby. If we are talking about women who are looking at what it takes to get into a trade then I think that academic preparation with the expectation that “Oh, yes, trades includes further book study and further academic work”, that’s a true indicator of what preparation is required.

The academic preparedness for trades is not only a woman’s issue, it is also an issue for anyone who has had bad experience in their academic backgrounds. So it is a challenge for women to get a good introduction back into an academic setting. There is not a lot of academics in the trades but there is a strong component of academics. You can’t play catch-up while you are in it, you have to be prepared, because there is such a concentrated time related to the academic side, the theory side.

We are hoping that the Apprenticeship Preparation Program will be key in addressing the academic challenges. The Apprenticeship Prep program came out of the academic upgrading modules that were produced in the NWT. When we got them, we felt it was a good start, but we thought there were some weaknesses so we went a step further in producing our own apprenticeship prep math and science. We did not deal with English because we thought that language preparation already had a good basis in the College system. For those that needed to get up to level three of English, that was already there. Our concentration was on a short focused program on the math and science. They are trades focused. Math for instance uses a workbook and text “Mathematics for Trades, Canadian Edition”. So it’s got metric and imperial within it. It is for trades.

Then the idea of finding appropriate employers needs to be considered. I know that some employers that are jerks towards women, but they are jerks to all their

apprentices, men and women. We have some employers that are just terrible employers to work with. For the most part I think we have very good employers. I think it's just getting past the jerks and getting to the good employers, who are I think are most of our employers. That's one of the challenges that I would see. It's very hard for government to say, well here's a list of the good ones and here's a list of the bad ones, we can't do that. So one of the challenges is to try to help all apprentices, but particularly women, get over that aspect. Unfortunately, I think there have been too many experiences where the bad examples seem to portray the whole. I don't think it's quite right but it certainly is a challenge.

A preparation program for women cannot deal with everything, it cannot cover all the problems that individuals come in with, just like a pre-employment course can't do that. There has to be some aspect of selectivity in terms of people being prepared at some level. The course that WITT is going to be delivering for Yukon College, there is going to be an expectation that they do have Level 3 math, science and English, which is basically about a Grade 8, 8.5. You can't take people with less than that, you just don't have time. Also, people with addictions problems are not going to last long in a pre-apprenticeship course because the course itself just can't deal with those sorts of difficulties. In the same way I think there is an unrealistic expectation that an addiction problem can be dealt with in a women's course, and I don't believe it can. I think it's too distracting, both for the instructors and for the other students to go too deeply into personal problems. That is my one concern for a program that tries to do too much. It distracts too much from trying to prepare for working in the trades.

There is other support at Yukon College and other places as well for dealing with those types of issues. It's a hard question to say "Yes there are". I think there are many attempts to, I don't know that there is anything that covers everybody's needs. That's the danger, trying to get a course that covers preparation and other things. Even though there are holes, gaps, you have to be pretty focused in a program to accomplish what really is needed, preparing to give women a realistic entry and expectation of what they are getting into when they enter a trade.

Initially, the Yukon College Developmental Studies Department was not involved with the Women Exploring Trades and Technology (WETT) program, because the Apprenticeship Preparation math and science courses were not an integral part of the WETT pilots that were done. Now that Apprenticeship Prep math and science is becoming an integral part of the WETT program, it is combining the resources of Developmental Studies and the Trades Departments at the College. I believe the new WETT program has 72 hours devoted to math and 72 hours devoted to science portions. We are hoping that will be enough to get the women to the point of passing their trades Entrance Exam. That particular aspect is for all non-electrical trades. Someone wanting to enter the electrical trade would still have to do more math and science than the Apprenticeship Prep. They are going to have some component in the trades work experience, but the Apprenticeship Prep program will not qualify them to enter an electrical trade. The Trades Entrance Exam pre-qualifies someone to enter into apprenticeship without further upgrading if they don't have high school pre-requisites.

Even if someone took a Pre-employment course at Yukon College, if they wanted to enter the Heavy Equipment Mechanic trade, they still have to have grade 11 academic. So if they don't have that, they still have to do the Trades Entrance exam to prove that qualification, or do the Apprenticeship Prep program to get that qualification.

Funding for these women's pre-trades programs comes from the Advanced Education Department. It has come out of an agreement with Advanced Education through the Labour Market Services side. I'd like to say thank you for paying your taxes.

Advertising for women's programs is done through the WITT program, we certainly encourage it whenever we hear of any woman who is interested in the trades. The advertising itself is part of the program budget. We do have ongoing calls. It certainly is not 50/50 with calls from men, but we do get calls. From parents or from people who are coming into the Territory and are looking for another option for post secondary work.

We are waiting for a re-print of a booklet called *"Step Into The Trades"*. We do presentations at schools, I just did a presentation at the Schools Council Conference about high school apprenticeship and apprenticeship in general. We are very encouraged that we have a lot more contact with the school system to invite us in to talk about the program with students at the Grade 10 – 12 levels. That's been working very well, compared to ten or fifteen years ago. We are encouraged by that. It used to be that the normal entry into apprenticeship was somebody who had been out of high school for a while, been kicking around then decided to get some formal training in the trades because they happen to be there. We now have more high school students who are graduating and coming straight into the trades as their first choice of post secondary. Or going from high school straight into a pre-employment course then into a trade. I think that has changed the dynamic a little bit. That does come partly from hearing about us more often in the school system.

We have a few examples of young ladies who have been working for a parent or within a family situation are looking more seriously at a trade. A lot of times pre-employment courses at Yukon College or a college down south are seen as a good avenue for women to explore whether they really want to get into a trade. They are still going to be in a pre-dominantly male setting but much more on an equal footing because the males there don't know anything about the trade either. As opposed to entering directly into an apprenticeship, where they are surrounded by upper year apprentices or certified trades people, they are coming in with no background. So we encourage the pre-employment courses because they are on an equal footing with the other pre-employment students there.

We provide the curriculum for pre-employment courses because we accredit the programs for apprenticeship. We hear from employers daily to know of any apprentices or if we can register employees they have. That is our job, to work directly with the employers and labour organizations and with the College.

English literacy is not part of the Apprenticeship Prep program right now, we thought it was just asking too much to have that in a program, if you're already trying to start math and science and you can't read it, but I think there is already lots of good work with the infrastructure in the College and with Literacy Yukon and some of the other groups that are doing that kind of work to get people up to the point where they can enter the Apprenticeship Prep programs. There may be some people who are trying to take literacy programs simultaneously with Apprenticeship Prep programs, but I think it's just too much of a load to try to do that. Our experience is that people need to have at least Level 3 language ability for pre-apprenticeship programs, so they are pre-tested at the College. We will refer them to other services if they can't meet the requirements for the Apprenticeship Prep program.

We recommend the Apprenticeship Prep Program to anyone wanting to improve their academic skills. The math portion uses a text book /workbook that can be used as a self-study. If someone tries the Trades Entrance Exam and fails it, they have the option of doing some self-study. The science is a bit harder. There is a text book but it is not set up as well for self study, but it can be used. They can use the same resources that are used in the Apprenticeship Prep program. There are also the learning guides that were done through the Northwest Territories but I think they found there were some shortcomings to using those guides for self-study. We have used them for some of our more motivated students, some have taken those guides, studied them on their own, and come back to pass the Trades Entrance Exam.

There are some models for distance education that we are starting to look at piloting for trades specific learning, and for someone who has been registered as an apprentice. One is from Nova Scotia, they have some distance education for oil burners for example. We are trying to find an appropriate student to model that. Most students don't like distance education, distance is very hard to complete successfully. I personally hate distance learning, I've tried it, I am not well self-motivated, so it doesn't work for me. A lot of people find that.

We are using a model in our electrical course that is computer based, using in-school delivery. We are piloting with at least one student this coming January. That student will do the computer based work at home and then come in and do the lab work. The problem in trades training in any of the trades level courses is that there is a combination of about 50/50 of hands-on shop work and the theory work. So you can only go so far with distance delivery unless you add in some access to some lab and shop activity. For the Apprenticeship Prep program, they are doing it now by video conferencing through Yukon College to the communities. We are supporting that by providing some money. We are hoping that will become a stronger reality beyond the piloting, that it will be taken up into all the communities as an equivalent or as option in the same way that they would deliver math 030, 040 stuff.

A fair portion of our apprentices are from the communities, but they come into Whitehorse or go to Alberta for their in-school training portion. In the communities, they find their work experience.

Last year, the Apprenticeship Prep program did a pilot through video conferencing with eight or ten students in Carcross plus some students in Mayo and I think also Carmacs. So there was a pilot in terms of having people involved in the Apprenticeship Prep program by distance. It worked for some, it didn't work for others. That is one element of trades preparation.

Within the communities, we also have been funding trades preparation programming delivered by Yukon College where there is a Yukon Government capital project going into one of the communities, such as school being built. Prior to the school starting, we would provide funding to Yukon College to go into the community and sign up a class of trades preparation which involved job skills, safety skills, some math and science upgrading to bring people to the point of then being prepared to enter into a Level 1 carpentry program. We are pretty much restricted to carpentry, it's pretty hard to do any of the other trades to any big extent. We have been doing that with any of the major capital projects in the communities. We've been through most of the communities over the last 15 years doing that. Yukon College delivers it, we provide some funding and some funding may also come from the community, or they may give support in kind with facilities or materials or something like that. All of the theory and hands-on learning happens in the community. People that pass the course have the opportunity to challenge the Level 1 exam, like the pre-employment course in carpentry. This is a little longer than an eight-week Level 1 course but shorter than a pre-employment program and deals only with the Level 1 apprenticeship content which is foundation work, work up to the floor of the building. If they pass the Level 1 exam, then when the contractor arrives in town, they have the opportunity to register as apprentices already having Level 1. In the communities, we have had very very few women participate. Part of that is the dynamics within the community I believe, I think there have been some, but I think very few women.

My advice to other organizations wanting to support women in the smaller communities getting into the trades is to just continue encouraging women. It might be that WITT would take on that kind of chewing. From "Ah, there's a school being built there, Advanced Education usually goes in here, maybe we should step in three more months ahead of that and offer a women's program, specifically to see if there is an opportunity in the community." I could certainly see supporting that. The expertise for gauging that lies much more with WITT than it does with me in terms of seeing what the possibilities might be in the community.

Connecting with remote mine sites is much less of an issue in the Yukon than it is in the NWT. We certainly do connect with the mines. They are not as remote, they are usually close to the road so it's not quite the same issue. We register apprentices with the mines, we're part of the Mine Training Institute work that is happening, we are on their curriculum committee, so we have contact that way. Most of our contact is through individuals who are being registered as apprentices and less through any type of pre-trades or pre-work training.

The mines tend to do that a little more focused specifically to their own needs. Some of the mine training is with people with no prior background, some of it is even lower level in terms of work preparation and not necessarily trades prep training. Like most employers, the mines will more than welcome people who have done a pre-employment course first, and come in with some tool skills, and some basic knowledge of the trade, some awareness that “Yeah, this is for me and now I am applying because I have done that course and I know what it means” to be a carpenter or a welder or a heavy equipment mechanic. Our employers aren’t nearly as large as a GM or Ford or GE or anything like that, we don’t have that scope of training. I think our employers probably do more work preparation courses for non-trades and count on people doing pre-employment courses for the trades on their own.

The Construction Safety Association has a CD to do a Construction Safety Certificate.

I think that what WITT has been doing, as well as Skills Canada, has helped an awful lot in bringing the opportunity of trades post secondary education to women. I think it has been just tremendous that way. I think that a stronger preparation model now, rather than just an introduction and exploration model will help some in confirming for women who may have had no experience with trades that “The math I can handle, the science isn’t that bad, and I love the shop work”. That combination is going to bring a lot to success. And also the aspect of encouraging integration into a normal pre-employment stream where everybody is on an equal footing, I think those are the things that will help.

Lynn Standing
President of Women in Trades and Technology (WITT)
And Electrician
And Director of Facility Management & Regional Services
Department of Public Works
Government of the Yukon
Phone: 667-3589
Fax: 393-7039
lynn.standing@gov.yk.ca

I won’t answer in my role as President of WITT, because I assume that you’ve also talked with Betty Irwin, and Betty can provide you with the whole scope of what we do with WITT, so I will restrict my comments in relation to my position as Director of Facilities for Public Works.

Presently we have no programs in place that are specific to women. Through Yukon College and several other organizations in western Canada, we have pre-trades training for building engineers. People can do a portion of their training on-line through NAIT or SAIT, the rest they do in house. After successful completion of that course, they do get

a certificate of competency saying they are qualified as a building engineer. The course is not restricted to Yukon Government employees, it is open to anyone who wants to take the coursework and can get the practical experience working on a site that has a Power Engineer requirement. But in this organization we support anybody's initiatives for skill development, either male or female. We don't have a lot of women working in the trades within this organization specifically in pre-trades or an apprenticeship. We do have journeyman women working in the organization.

Marilyn Mendez is working with us right now, she successfully graduated from the Yukon Women in Trades and Technology course at Yukon College. She came into our workplace because she was interested in developing her skills. We are supporting her through that course because she is a trainee and not really a Yukon Government employee. Building Engineer is not an apprenticeship trade. It is a Red Seal Interprovincial recognized trade, but it is not an apprenticeable one in the Yukon.

As an organization, we don't have much need for pre-trades training. But when we are talking about providing opportunities for training for women in this organization, the challenges are fewer than they used to be but there is still a bias against women in trades. It is much more acceptable but still there's always one or two who choose to make that difficult.

What I have found the most effective way to resolve a workplace issue is how the woman herself approaches the issue. If they tend to be more self confidently assertive in dealing with the issues, either at the time with the individual, or coming through a senior management position and having help in resolving those issues. The sooner, the better. The background noise as I refer to it, if you let it, it just grows and spreads and becomes a more difficult issue. You nip it in the bud, your success rate is higher.

I guess from my perspective, success in pre-trades training for women is making women comfortable in those workplaces. That means something as simple as knowing how to use your tools properly, knowing what tools to use when, that type of knowledge. Having a good perspective on how to work safely, which gives you more self confidence as well. And having a general overview. If you're going to work on a construction site, having a base knowledge of what all the components are. The other trades that fit into whatever you're building, what the final building is going to look like, just an overview of the whole program so you can see the end, and you can see yourself moving towards that end. Self confidence.

A pre-trades course is a very good place to learn that perspective. Whether it be a pre-apprenticeship course or the Yukon Women Exploring Trades and Technology (YWETT) course or an apprenticeship, anywhere that will give you a place where you can make mistakes and feel comfortable and supported in making those mistakes, rather than being on a construction site and having somebody hollering at you for making those mistakes.

If you don't have a background or a comfort level with walking onto a construction site and fulfilling whatever role you are there to do, then taking some sort of pre-apprenticeship training that gives out the base skills would be of great value. The course they are doing in Watson Lake right now, those women are working with a female carpenter doing renovations in an apartment building. There is a great deal of satisfaction. It's a diverse project, they're doing flooring and painting and patching and electrical and plumbing. It's quite diverse, very interesting, and they're making tons and reams of mistakes as they go, but they're laughing about it. It's supported throughout, and they're learning how to do it right. They learn from their mistakes. A lot of women prefer to learn in that type of environment, versus "This is the clock, hurry up, hurry up, hurry up". Time is money. That program in Watson Lake does not have a theoretical component, it's all hands-on.

Depending on the newspaper is not the best way to promote pre-trades training programs for women, we learned that on the last go round with YWETT. In the Yukon, word of mouth is still the best method of communicating, it's just getting that message out as quickly as you possibly can and talking it up. I would say that probably radio might be a good method of talking it up. There's too many ads in the paper now, you can barely get through the paper for ads. I think that WITT has increased its image, it's out there. Looking at it from the perspective of a woman living in small community like Mayo, how would I know about these things? It would probably be the radio would be the best bang for your buck.

I took a CET course, a number of courses, online to reach my certificate in technology through SAIT on line through Yukon College. I had text, I had direct visual and audio communication with the instructor through computer based learning and video conferencing. That was of great value, to have two way communication. I also had a co-learner so I had some support and someone to do my homework with. Having a community of learners was very helpful. The other person was a male and he found it very helpful as well, that's not just restricted to women. We used an intelligent electronic whiteboard to convey information back and forth plus the audio communication. That was about ten years ago, I'm sure the technology is more sophisticated now. It was also important for me to have a text as well. I accessed the computers at the College. I could perhaps have done it at home, but the hardware would have been a bit of an issue.

I think that having a support person on site would be helpful to make distance learning work in the Yukon. If somebody in Mayo wanted to take some pre-trades training by distance education, then having a local support person through Yukon College would probably be of great importance. Also maybe a local mentor, the local carpenter.

I think that helping people understand the commitment to working in the trades is probably of great value. The time commitment for entering into a trade, and learning a trade and for all the demands of the job are pretty extensive. People need to know that up front. They also need to keep in mind that having a trade does not necessarily mean you will have the same job for a long period of time. It may require travel. For some that's an opportunity, for others, not. You may actually have to leave your community,

both for the training component and for the work component. If you are committed to doing that, then having your life organized to be able to do that. I think that talking to people who have already gone through the process, talking about their own personal experiences may be the best way to have a better grip on reality.

From my perspective, the whole learning around pre-trades training is really important. I wish I'd had that when I was going to school. I took a pre-apprenticeship course but it didn't give me the basics. I was the only woman. Everyone else in that course already had a lot of the basics, knew how to use the tools, knew a pair of sod cutters from a linesman's pliers, all those things I had to run and catch up. Even having a knowledge of what your roles and responsibilities and rights are when you walk on to a construction site. Being safe. So when someone tells you to get up on a ladder you know what to look for before you climb up so you don't end up coming down in a way you didn't want to.

Maureen Moore
Instructor – Women in Trades Program
Liard First Nations Women in Trades Project
Phone: 334-4031 (cell)
maureen_moore@hotmail.com

Notes from a conversation with Maureen Moore:

Successes that came out of the project:

- The graduation of the women participants in the program
- The confidence building that occurred for the participants
- Students said that the project “opened doors” for them regarding future employment
 - Several graduates are currently employed in trade related work
- Skill development for the participants
- Community support and acknowledgement of the participants
- Having some of the project applicants involved in interim community projects (landscaping, general labour etc.) while they were waiting for the next session to start. This helped prepare them for the time commitment, attendance expectations etc. of the project.

Challenges:

- Unclear communication
 - The expectations between the administration, instructor, and students regarding such things as the purpose and expected outcomes of the project, the budget, the use of the instructor's tools etc. weren't always clear.
- Addressing Social Issues for the participants regarding:

- Alcohol
- Family Violence
- Medical concerns
- Addressing the varying literacy and numeracy needs of the participants
- Budget limitations regarding
 - Food for the participants
 - Money to bring in other journey level trades people to instruct portions of the project specific to their trade

Recommendations for program planners of other pre-trades training initiatives:

- Be flexible and supportive with participants
 - understand that their children are a priority in their life and may require time within the parameters of the project
 - understand that frequent medical appointments and personal crises may be realities for the participants
- Establish clear communication between all project participants
- Ensure that the instructor is aware of and has input into the budget, project expectations and development of the project
- Ensure that the project instructor has adequate housing, access to necessary technology (phone, computer with internet, printer etc.) and a good salary (as well as clarity regarding their per diem, travel expenses etc.)
- Interview participants to determine their suitability, commitment etc. and to ensure that there are clear criteria for selecting applicants. Be aware of potential conflicts between participants in the same cohort.
- Possibly have a classroom component to the project as well as the hand-on component.
- Ensure that social supports are in place for the participants (counselling, access to safe accommodation, childcare etc.)
- Carry out the training in a space (building) which is secure and where noisy isn't an issue for other residents (an unoccupied building).
- Have an adequate kitchen on site as well as a phone
- Provide food to participants (breakfast & lunch). This can involved them cooking but provide the groceries and kitchen supplies.
- Keep the instructor's focus and role on teaching
 - Have another person take care of time sheets, putting social supports in place, public relations, grocery shopping, gathering supplies etc.)
- Keep the group size small (five participants for one instructor)
 - Having a second trades person hired (such as a carpentry apprentice, former graduate of the project etc.) would be very beneficial to the instructor and to the participants
- Have the participants share the daily tasks (taking out garbage, sweeping, cooking, dishes, etc.)
- Bring in journey level (or equivalent) trades people to instruct specific components of the project (plumbing, electrical, painting, floor laying etc.)

- Provide all tools and equipment necessary to complete the training (don't rely on instructor's personal tools)
- Be clear with participants and funders about what the expected outcomes are for the project
 - If it is a pre-trades training, it is introductory and the students will not necessarily be ready for employment or a trades entrance exam at the end of the training

Nick Shonewille
Whitehorse Motors
4178 4th Avenue
Whitehorse, Yukon
Y1A 1J6
Phone: 668-3326
Fax: 668-3974
nschonew@whitehorsemotors.com

Here at Whitehorse Motors, we offered a Women's Car Care Clinic. It was not really only for women, but we had a good turn out of women. There are just as many men out there that need the car care clinic as women. I am not sure if we're planning to offer it again this year, but there is a good possibility we will. There's enough interest.

We also had Betty Irwin and her group come through on a tour, showed them the whole facility, the parts room, the sales office, the body shop, everything.

I found that the Car Care Clinic gives women a basic understanding of how their vehicle operates. They get to look under the vehicle. Everything is pointed out to them as far as basic brake operation, fluid levels, where they are all checked., We try to answer most of their questions. For example, "I brought my car into the shop and they said I needed new spark plugs. Where do the spark plugs sit?"

It's an evening get together, and gives them a basic understanding of how the vehicle works. They should leave here confident to check their tires, check all their fluid levels, possibly grease it if they want. Some people get into that.

The challenge is trying to get it all covered in the amount of time available. They are very interested, and they are going to ask a lot of questions, and if it's a one evening thing, then with a large class, you have a hard time getting through everything. Some people brought in their own cars that we set up on the hoist, so they could look at their own vehicles. We had some vehicles in the shop already on the hoists so they get to crawl around and touch underneath. They all got a little something, like a tire gauge.

We have all of our Ford training here, it's all password protected through the internet, you have to be registered with Ford to take those courses. There's all kinds of courses out there for us. Theoretically apprentices from the College could come through here. We're always looking for journeymen. We've got two apprentices right now. I think one did do his training at Yukon College.

I would suggest that girls should do good in high school first. Years ago, if you couldn't do well in the academic stream they would send you to the trades. We don't want to see that. We want those academic students, there is so much computer controls on these vehicles. There is good money to be made here too, and while they are training. Anytime you enter into an apprenticeship contract with an employer, it's the same in any trade, we're locked into paying them a certain wage, based on where they are in their apprenticeship.

Booklets are useful as training resources, it should fit in their glove box, something they can take away with them. It should cover the basics, people seem to like diagrams.

When it comes to the automotive trades, I find that it's not just women its everyone that we need to attract. I'd like to see more women in the trade, they look at things a little differently at times, but my opinion is that anyone who has a drivers license should have some basic automotive skills, it would help them in their driving habits.

Robyn Hamilton
Policy Analyst
Women's Directorate
Whitehorse
Phone: 667-3026
Fax: 393-6270
robin.hamilton@gov.yk.ca

There is a course delivered at Yukon College that we have been involved with in the development, in collaboration with Yukon College and Yukon Women in Trades and Technology (WITT), Advanced Education and a couple of other organizations. We also assist with the registration for the pre-trades training that is offered through WITT. They put in registrations forms and we assist them in that process. They do a whole bunch of weekend courses every year, carpentry, welding, to allow somebody to get a taste of what the trades are about before they decide on entering any kind of program.

We also help to co-ordinate and fund the Young Women Exploring Trades Conference which happens every year. It is in its sixth year this year. There are about 200 grade 8 girls that attend. There are a number of workshops that go on over the day that we participate in, it's really successful. That will probably continue to go on.

Coming up is the Ms Infinity Conference, which focuses more on Women in Technology. That's also really exciting.

We offer development expertise or support for programs such as these. We also ensure that there is a gender analysis done when the programs are developed, so looking at sensitivity to women and what their needs are when they go into trades or into trades training. What the classroom might look like, the sensitivity of the instructors, that sort of thing.

We also provide some funding to the course that is offered up at the College, and also to the Young Women Exploring Trades Conference. We provide funding and advertising for that as well, and we participate on the committee. We are there as participants and volunteers on the day of the conference.

Some of the important elements that make this type of initiative work, are that we try to get female instructors, and we also try to make sure that there is an understanding of what it is like for a woman to be in the trade, some of the challenges and some of the barriers. So making sure that people really understand what some of those issues are. We also ensure the location is appropriate and we provide resources as well to women who might be there doing trades. But often what happens is that there are other issues for women in the trades. So if there is anything like low income issues or child care issues or social housing issues, that kind of thing, we would try to provide information. So acting as a resource. We try to support women by putting them in direct touch with the services they might need relevant to those particular areas that they might be challenged by.

Sometimes in the courses that are offered by YWITT, sometimes some of the examples that are used might not be as gender sensitive, so we would provide some advice or recommendation.

The Young Women Exploring Trades conference is an opportunity for young women to get an idea what the trades might be like so they can start to think about pursuing a career in trades. Some of the women coming into the YWITT program have some background, but in talking with the women who come into our office to register, I find that most do not have a lot of background, although most have a keen interest. Most of the women who come into the course at the College have some experience and want to go into trades as a career option.

We ensure that a gender analysis is done on any types of programs and services that are offered to women getting into trades. Some of the programs have evolved due to the gender analysis we have provided. We have been involved with WITT since before WITT was WITT. At least 12 or 13 years ago, maybe more, it was Women in Trades at the time, and watching that developing over time was great. We encouraged women to sit on the board, we provided representation on the boards and committees, and worked in collaboration with other women's organizations. I think that immersion into gender inclusion analysis from other organizations WITT has been collaborating with has really

built and strengthened the organization, making sure that it is really responsive to women's issues. I have watched it grow over the years.

I think the College understands the need for having a gender piece within that curriculum, but it's not always easy to help other organizations understand the benefits. It may be particularly difficult for people who are developers or people who are in the construction industry to understand the benefits of having women on site and in the trades. So it's that constant education about the values and about the evidence-based research that's done on the effectiveness of having women working in the trades and how that works well for an organization. I think that has been one of the biggest hurdles.

Another challenge has been to secure more funding for women's organizations working on the trades area, particularly YWITT, although they have done really well I think, and the more work they do in education, there is more support. It's an ongoing process.

We were involved in doing an analysis on the Mackenzie Valley Pipeline when it was intending to occur and we did a fairly significant discussion paper with the staff and it was really difficult to get that forwarded, to be able to present that information and have it be taken seriously, looking at the impacts of women being involved in that industry. So I think it's education that's the biggest challenge, and evidence-based research that says "This is a good thing".

Our role with regards to women in the trades has been primarily a support role, but a few years back, we did a conference on balancing work and family. Part of it had a trades component to it and we had local industry come in on a panel and talked about the value of women being in the workplace and working in industry. It was quite powerful. We had women working in the trades as well. There have been a few initiatives like that

The Women's Directorate has provided some funding for advertising over the years. We will help with posters and communications and news releases trying to get the word out. We also support YWITT by going into the schools and doing presentations for the YWITT Conference. We don't give a lot of funding towards marketing programs, but we do provide some assistance.

I don't think there is enough for women trying to get into the trades. I think that industry needs to be more involved to attract and recruit and retain women, I don't think that happens at all actually in a big way. I don't think I've ever seen a big initiative from industry here that does that. I think it's more a case of us going to industry to try to draw out an interest. That doesn't happen with the Yukon Government either. There may be some programs they offer within Highways, but I don't think so. We've tried to collaborate with them before on initiatives. Marcia Braundy came up here to do a program at Yukon College. We also set up some meetings for her with departments who were working in those areas. There is still a reluctance to completely buy into women working in the trades, even though there is a challenge in the industry. It's changing, there was mention in the legislature and in the media about the support

programs in the trades but there's not enough buy-in from industry and other organizations, I wouldn't say.

If any organization wanted to offer distance education as part of a women in trades initiative, I think there would need to be a partnership with Yukon College to have some sort of satellite that would go out to communities, otherwise they would have to provide some sort of support for transportation and ability for women to be able to participate. I think it would be really difficult for women from the communities to be able to attend so there would have to be some mechanism put in place for access. I think that bringing women in to training on site or bringing the training to the communities is going to be better until there is good technology to do distance education. The course in Watson Lake worked really well, women were able to train in the community and work on a project that's in the community. That's really an ideal situation.

If I were to offer advice to a new pre-trades initiative, I would say make it very versatile and flexible and try to really meet the needs. Particularly for young women, it has to be very appealing and sexy and engaging and relevant to their lives. I think make sure it's really sensitive. I think that probably women-only courses work better. Make sure there is enough funding and enough money to help support the realities of women's lives. That's one of the challenges with the College courses, the timing, when it takes place, how much funding is available to provide support to women who are attending, child care and housing issues, even violence issues. So just make sure there is a really good awareness of who the population is that you are trying to serve. Make sure that the curriculum is really relevant and looks at literacy levels and math.

I think it is important to encourage program planners to take on the initiative in the first place, to see it as an issue, see that there is a need, there is a huge gap right now in the labour market for women in the trades in the Territory. There is a need. I was talking to Yukon Housing, their problem with trying to fix up housing that's available is that they can't find anybody working in the trades to do the job. There is a huge labour shortage, so having planners recognize it as an issue and start drawing on the population that's here. Then have them look at sensitivity training and apprenticeship programs and training programs that are sensitive to women's needs, and make it responsive. Then do collaborative projects with industry and start building it into funding initiatives that are available through government and making it a requirement to have women represented, and look at recruitment and retention issues and look at trying to have women better represented in trades in the territory. Then there has to be hiring and sexual harassment policies in place, there are other policy and legislative issues that are arising too.

Ron Sumanik
Acting Director, Corporate Services and Business Development
Oil and Gas Business Development and Pipeline Advisor
Department of Energy, Mines and Resources
Government of the Yukon
Phone: 667-5026
Fax: 393-6262
ron.sumanik@gov.yk.ca

For the last five years or so we have funded a job site transportation or worker mobility fund. It was specifically designed to allow oil and gas rig workers to obtain job experience outside the Yukon because very little activity was occurring here. We assist in their transportation to do that. Given that 90% of rig workers training is on-the-job training, we felt that it would be a good investment given that activity is ramping up here in the Yukon, the hope is that some of those individuals would someday be working back here in the Yukon. We have the flexibility within that fund to look at other oil and gas training opportunities, so we have used it for pipefitters, welders, and so forth in large diameter pipeline construction in Alberta.

To my knowledge no women have benefited from that fund. We get applications through the company, the company pays for the transportation initially and then we reimburse the company based on invoices they submit. It's not an individual based program. They do supply us with the names of the individuals, and thus far no women have had that opportunity with those companies.

The fund is a general Energy Mines and Resources budget item. Once a year we ask for a certain amount of funds for it and since it's inauguration, we've been funded. We've kept a fairly low profile, I believe the fund is mentioned on our website, and we meet regularly with all kinds of oil and gas industry people at least monthly, and from time to time, we let them know about the program, but we have not put ads out there in the paper. Generally, it's been close to fully subscribed by industry. I admit that there are all kinds of other opportunities for other trades outside the Yukon that could benefit from a similar program, but this program is specifically set up to get Yukon workers ready for an oil and gas industry that we think will exist here in the next decade or two.

In order to access the rig training, you need somewhere between 7 and 28 days background or what I would describe as in-class or simulated rig training experience. There are some mobile facilities, for instance, a rig was set up in Inuvik about four years ago. As I recall, Yukon College, and the College in Inuvik, and industry partnered to train approximately 20 – 50 individuals. Most trainees go to a site at Nisku in Alberta that has been set up there for many years. It is industry recognized certified training. They take you through the training then ideally, the companies immediately want you on a job so that the theory and practical training is immediately imprinted into your everyday work life.

People who have accessed that rig training have been a combination of people who had no training, went to a drilling company, said “I’m interested in working” and the company put them through that Nisku training. If they happened to be a Yukoner, the company applied to us for transportation reimbursement for the on-the-job component that followed immediately after their Nisku training. Most of them had that training at Nisku and were ready to work, and some were Yukoners we were able to benefit from the training and our jobsite transportation program.

When I go to conferences, this discussion always comes up about the skilled labour shortage, and there’s no question that no matter where you go, they definitely see women and aboriginal people as an underutilized pool of people in society that could really add to the labour force, and could add to it very, very successfully. I know that the oil patch is targeting that pool of people not just the traditional male labourer.

The fund covers transportation from the Yukon to the location where the on-the-job training is located. They are earning a salary while they are there. Rather than somebody that lives a short distance away from the jobsite, it gives these Yukon residents an equally competitive footing. Because there is a shortage, everybody’s looking around for workers.

I think the budget amount was about \$75,000 this past year. It has been generally been between 10 and 20 individuals. They might finish a certain drill program in Northern Alberta then the company says, we have another job for northern BC, and they might come back to us and say, “We’ve got another opportunity to keep these Yukon workers training, can we access additional funding?” We like to see too that the individuals can and are moving up the ladder, that they’re not stuck in an entry level position, that’s part of the criteria that we look at when we get a second request for more travel assistance. The companies submit a simple report at the end. We can see if it is getting people not just a job but ultimately some sort of career.

They have to be Yukon residents to apply, we ask for evidence of that, usually a medical card. You start to recognize some of the names that have benefited from this program.

The Yukon will probably see a noticeable increase in oil and gas activities in the next two years. We have been meeting with industry and there will be activity in the Yukon, I can almost guarantee it. The corporate approach of some of the potential newcomers appears to be different from many oil patch companies, fortunately they are very keen to take advantage of the northern work force and northern businesses. That certainly plays well politically with us and with Yukoners that want jobs. Finally it looks like we are going to see some activity starting in the late winter and going for a number of years and hopefully we will see some Yukon residents employed and gaining experience in oil and gas.

The work opportunities the oil and gas industry in the Yukon right now varies and is low now relative to other western jurisdictions. At the time of this interview, none is going on

right now, but on average we've seen generally about one activity per year, seismic, line cutters, brush cutting/slashing crews or drilling. We have seen some drilling, two programs since 2001, and we're now seeing a lot of activity in the Beaufort Sea and Mackenzie Valley that the Yukon has a role in, so we are speaking and will continue to do so on behalf of Yukoners for those employment and business opportunities as well.

Shelagh Rowles
Dean of Developmental Studies
Yukon College
Box 2799, 500 College Drive
Whitehorse, Yukon, Y1A 5K4
Phone: 668-8741
Fax: 668-8828
srowles@yukoncollege.yk.ca

We do have programs in place to prepare students for trades training, they are not specific for women, but women are more than welcome and encouraged to participate. Developmental Studies offers Adult Basic Education, anything from high school equivalency to skill development. Where we focus in on a trades specific preparation is our Apprenticeship Preparation Math and Science. Those were developed specifically to give people the skills they needed to pass the pre-trades exam as developed and administered through Advanced Education Branch here.

From what we could tell, even if we had students were passing the Level 1 Apprenticeship exams, and the majority of people they were talking about were carpenters, there is quite a significant numbers of carpentry apprentices on their list, they might get through the first year, but by the second year, it was a heck of a jump for people to get through. When they started looking, they found that science was really lacking, and at times, the combination of science and math. Putting it into context in the Territory, and I'm sure it's not too different in other territories, the availability for students in rural places to have comprehensive science programs is luck of the draw. You might be in a smaller town, and you might have someone whose specialization is English or Social Studies, which is more common than having someone whose specialization is math or science. So we find that as adults, very few people have had anything but limited exposure to science education.

So we were trying to address that, but put it into a context as far as the trades go, so that every concept that was introduced in math, was introduced with a complementary science concept so they understood the relationship between the two. So as far as trades specific programming, we found those to be very helpful courses.

We've offered those twice as a full program, so there was a combination of in-class instruction coupled with pre-trades exposure in the afternoons, so people got an

opportunity to try the electrical, the welding, the carpentry, and get a sense of how vast and rich the trades area is. We did have women participating in that, however the majority were men.

Last year, through video-conferencing, we offered the Apprenticeship Preparation math and science courses. In Dawson City and Carcross, they had community projects that allowed the students to have the reinforcement activity in the afternoons. So if you were introducing concepts in the morning, you might have a chance to reinforce that practically in the afternoon, but at least there was the opportunity for people to be exposed to the trades.

There were women in both the Dawson and the Carcross delivery, there were two or three women that passed the Pre-Apprenticeship exam in Carcross and one or two in Dawson. We found it neat that the opportunities have spread out a bit and we found that it's been a model that has worked quite nicely.

As far as demographics in here, in our Developmental Studies programs, a significant number of our students are women. Retention rates are fairly high with them. More and more we do see women going through the trades, although trends do change from year to year. So that gives you a broad brush of some of our stuff.

The objectives of the Apprenticeship Prep Program (APP) were twofold: to pass the pre-trades exam - we needed to give people the skills to pass that because what we find now is that if you do not have your academic grade 12, the applications and principles of Math 11 and English 12, they will be asked to write the Pre-Trades exam by Advanced Ed, unless they come in through another route. Many students who write the pre-trades exam don't pass. So this was an opportunity to give people the skills to pass that exam. Over and above that, it was to make it so that people, particularly when they hit that second year, would not be functioning in a bit of a knowledge deficit. If you are a brilliant carpenter but you've never been exposed to science, you're kind of hooped.

Both of the Apprenticeship Prep projects that were happening in the communities were administered through the College. So In Carcross, it was almost like the First Nation had invested in the project, by buying all the materials, to hire an instructor. So it was First Nations dollars, Human Resources Development Canada dollars and also Advanced Education Branch, so you had this partnership that allowed people to do a bunch of community based construction projects where they were able to apply their skills. In Dawson, I think they just had a whole bunch of community projects happening almost in isolation, but the co-ordination was through the campus.

Each of them were going to offer their own Apprenticeship Preparation instruction, then we thought "No! Lets try to do this through video-conferencing so we can link these students together", and we can provide that, then the campuses themselves and their instructors permanently residing at each campus, would be able to facilitate and help the process so they would have the time to work with the community to get the projects going. If they are teaching full time and then have to do all that other stuff, it can be

really tough. So this was a way to maximize on the opportunity. We were really really impressed with the results.

Here when we offered it on site, I think we had close to 100% completion and retention, I think maybe one or two did not pass the exam, but we were very careful on the entrance requirement, so we had a set scope of people. With the community courses, they had some people whose preparation wasn't as strong, they were a little bit lower academic level – not across the board, but there were cases where they were allowed to participate in the program so we set it up so there was not huge pressure if they did not go through. Some of the ones we thought would do really poorly, did brilliantly. It was really the right program for the right person, that sort of thing. Whether or not they continue in the trades, we don't know. Some may need some additional support should they choose to do that. But on their own merit they passed the Pre-Trades exam, they did very well in the quizzes, and it appears as though the concepts taught in the class were sticking, they seemed to remember them, they could apply them in different ways. So from the point of view of educational instruction and development, that was really cool and quite exciting. That was the College's role in the midst of all of that.

The Community Co-ordinator was quite connected with the instructor here on campus. Often that person would participate in the video-conferencing, so they might be able to reinforce ideas. Not always. The Carcross crew had more open entrance requirements and the Dawson people weren't as varied. But in Dawson, there was somebody sitting in for a good part of the class to reinforce the concepts as it was going on. So you had the instruction and you had almost daily conversations with the community campus co-ordinator instructor there and the instructor here. It was her first time doing anything through video-conferencing so she'd want to know, "Well did this work?" They had a trebuchet contest. It was quite wild. It was a very practical thing here, but to have a virtual contest where they actually had to film things in action, it's just reinforcing so many skills. It worked, really quite nicely. It was an exciting pilot.

At the end of October (2007) we're going to be delivering the Apprenticeship Prep courses again through video conferencing. I don't have a sense yet of whether or not anybody is attaching themselves to a project, but that will be up and running, ready to go from late October through to the end of February. I don't know yet which communities will run these courses, and I know there are a few Whitehorse students as well to be added into the mix, so it might be yet a different sort of delivery. With this particular offering, it is less likely that it will be as focused as the one we had last year. It will be interesting to see yet another way this might work. Our gut feeling is that you need to have it reinforced through practice, that taking the academic courses without the practice is going to be tough for people. But this is an opportunity to pilot another form of delivery and see if the courses on their own are enough to really help people think about the trades and to get the necessary skills to succeed should they decide to pursue trades.

The course will be all through video conferencing, there's no practical built into this delivery of the APP courses, it's just getting them the necessary academic background

in a trades context to pass the Pre-Apprenticeship exam and get the skills they need should they get into an apprenticeship past year two. They are not required to have a practical component in the APP program, practical just supports it when it is available. That's just good teaching.

We are looking at doing the Women Exploring Trades model this year as a full Apprenticeship Prep program. I have chatted with Simone about teaching it, because it would be an amazing opportunity to have a female role model, someone who is passionate and enthusiastic about math and science in the trades. She is as bad as anybody about wanting to try everything out when she is down here badgering people "Oh can I try this welding machine?" So we're really hoping that goes through.

The APP programs have not intentionally been designed to lead to success for women. I think that having Simone involved in creating the curriculum was probably a really wise move. I think that having a male-female combination, you do get a female perspective. In a way, Simone is a bit brilliant in that she is engaged at the same time in more traditional women's activities. She is really into quilting and sewing. If you are looking at carpentry, there are a lot of transferable skills there, you have the measuring, the accuracy, the planning, there are a lot of things that go into those activities. So when she is putting things together, she is applying her own knowledge as well, so I think there is an inherent layer in there. But as far as a specific intent in the curriculum, or in the books, no.

When the Yukon Women Exploring Trades course comes over here and becomes an Apprenticeship Preparation course, assuming that we have a bit of prep time, there is no question that Simone would take the time to think about how it is delivered so that it would engage women in a different way than if you just a huge mix of students. In many cases, it's a rural/urban focus as opposed to the male/female that often drums itself up as a bigger issue due to access to education and whatnot. In this case, I think she will have a tremendous opportunity to sit back and be excited about it. "If I am presenting this concept, what are some things that women can relate to?" And she is so familiar with the material that she has the ability to adjust it. She is not learning it and teaching it at the same time. There is no question that she will be able to tailor things in such a way that it will ideally lend itself more to women. Whether or not it works, and people succeed in the end, who knows, but at least it is another opportunity to try to provide a different educational experience for people.

We have a number of pre-trades programs. People can come in to the pre-employment courses with certain entrance requirements and make their way through them. They don't have to write the pre-trades exam, they can challenge the Level 1 apprenticeship exam. Really what we want to do now that chances are the APP courses are not going to go away, is to find a way that they complement what is happening more rather than being an out-there stream that is offered by a different area, a different part of the building, that sort of thing. That has been an in-house issue. It's not anybody's big issue per se except in integrating things and complementing things. Usually when you take the time it's when you know that something is going to continue. Our pilot phase is over

now so we are getting to the point now where asking questions such as “What is the best mode of delivery for this course, where does this fit, how do we provide an opportunity for people to learn about it that’s not confusing?” I think right now, if I was looking at a paper and saying “OK, I could take the Apprenticeship Preparation Course, or I could take pre-employment carpentry, I don’t know which to choose”. That is something that might be a little difficult to work through. There has been nobody stopping us from working through it, it’s just trying to make sense of things and not moving in such a way that you confuse it even more.

The Apprenticeship Prep Program was developed to be a pre- pre-trades component for those who were not sure they wanted to go into the trades. Usually with pre-employment carpentry or plumbing, it’s quite a time commitment in a specific trade. So if you have somebody who is kind of interested, does not have the background, wouldn’t mind knowing more, then they have that opportunity to explore it more.

We’re also trying to articulate those courses through the BC transfer agreement. So someone who is taking their APP math may decide they would rather go into geography but they would not have lost that time, it’s transferrable too other jurisdictions. The applied portion is harder in southern provinces, you can’t really do that but there is nothing stopping us from using the other side. We are trying, it’s not there yet, but it’s an intent.

My advice to someone wanting to develop a pre-trades program for women, is to make sure you have women involved as instructors, role models, and curriculum developers. It’s interesting, the trades are huge and there are some traditionally female trades and those are given less attention, less credibility, less money. The more you can have women involved in the development and delivery of a pre-trades program, the better. If you have someone who says they have no ambition to be a welder, don’t want to do that, don’t really like that, but I like these bits over here, it’s all part of the same field, the same areas, it still has Red Seal certification, it’s OK. And it’s OK if there are some women who would absolutely love to participate in every element of the welding world. But there are some that don’t, and it’s just to affirm their role in the trades world as well. We sort of need everybody. I would say that is absolutely critical. Otherwise, everybody is having to go in from a very very male perspective.

The APP program was funded through Advanced Education. They continue to give us a bit of extra money every year for the video conferencing delivery. Then with the communities when they were doing their work, Advanced Education had invested in that as well. It was a partnership, they didn’t exclusively support it, but they’ve been very involved and very supportive and really are some of our biggest champions. It’s been a great partnership.

English literacy is a hidden component of the APP program. Particularly with the science, there is introduction of the concepts, people have to read the material. We are also helping them with test-taking skills, almost every day there’s a quiz, so it’s forcing people to stay on top of things. If we find that people are really lacking in reading

comprehension strategies, then we're able to at least recommend support through our Learning Assistance Center and different people in the building that would be able to help with that. As far as instructing on reading comprehension strategies in the program itself, we chose not to do that, primarily because by the time people meet the entrance requirements that we used here, they have already demonstrated that they have the reading comprehension level at the rate that's necessary to get through the text. With some of the initiatives where they opened up the entrance requirements, the folks got it. That is an interesting thing that we want to learn more about.

The entrance requirements we were looking at was a reading comprehension level that would be an exit level for a Level 3, a Grade 9/10 level. As long as their reading comprehension was reasonably high, if they were a little bit lower with their math, that was OK because we recognized the fact that as long as they had their reading, there was the ability to problem solve and relearn some concepts and learn other concepts in another fashion. But with people who have low reading comprehension scores it's just so hard because the material of itself, without trying to manipulate the concepts, is so daunting. So that's what we tried to focus on.

Everyone has found the math text the APP program used to be a delightful piece. For the English side of things it is tougher, to get articles and information. There is a route to the science information. Simone had collected a lot of information to put together her binder. I know we were using some of the information from the NWT. We found that worked at a certain level, but there was a whole other element that it seemed to miss.

If someone were to develop curriculum resources for our use to prepare women to women to enter trades, a combination of types of media would be best. You have different types of learners, some people really want to read things, the visual folks, if you have it on a CD. Also, we all have to get used to using technology whether we like it or not. So using an element of technology is a skill that is going to be so valuable to a student. It's never going to go away. It seems that more and more trades are getting more and more technologized, so if we are not looking at that and recognizing it, students are going to be having to re-learn things down the road that we could have addressed, even in a preparatory program.

This next pilot will be really interesting. We really believe that applied practice combined with the theory is the way to go for the delivery. It will be interesting to see how people do and what they do with it if they choose to go into a trade. They might pass the course, but that can't be the only measure of success. But through this program, do they take the extra leap and actually apply and go into another program.

There is no real system to track people after they leave the Apprenticeship Prep program. We can check here, but if they go to other places, and if you are looking at women that is quite possible, it's hard to get access to that information. Certainly Advanced Ed would not be in a position to disclose the names of all the people. So unless we had a release of information in advance, which is possible, maybe we could

do that with the WETT program. It would be interesting to see if we can do some tracking.

We are just about to deliver, for the second time, *Water Math* through distance learning. This course is for small water operators that are employed throughout the territory. Because the federal government has new requirements for certification for water operators, they are requiring everybody to write this exam in the next year or two. Across Canada, any operation that is related to a federal administration, people have to comply with the certification. In the case of the Yukon, we have a number of first nations that still have INAC work with them to administer water. So you have INAC, you have self governing first nations that want to comply with those regulations because it makes sense to do so. I believe there has been legislation introduced in the Yukon that will force compliance within the next two years. So everybody is coming on board.

Many of the people working in the rural areas and in Whitehorse lack the basic skills to be able to successfully pass the test. So we are bombing in this Math for Water Operators to give them the skills they need in the context of their work. The curriculum is Yukon specific, to a point, but it's water operation specific so chances are it's quite transportable. But it keeps in mind who our students are and what some of the realities of our communities are and materials that people have available to them. So it really is not assuming that you are in some heavy slick plant down in Vancouver or Alberta. This is quite new. There had been some work done down in BC and Alberta, but we were fairly early on in the process.

So we are developing distance learning a bit at a time. Certainly it's been a bit radical to say "If you have the need, we have the technology, let's put the two together and there you go."

The Water Math program was delivered last spring and is about to start up again at the end of October. The connection is being made through a partnership with Indian and Northern Affairs. It's actually quite cool, we contact every Water Operator facility in the territory, we tell them this is up and coming, we realize they have certification issues, we have the time. They have guys called circuit riders that go around from water operator plant to water operator plant troubleshooting just to make sure everything is OK. We're bringing in the circuit riders to the class so that whatever we are doing with the students and helping develop the math skills is also reinforced at the work site by these circuit riders who would be going on these loops anyway, so that's the practical component.

The modules that were developed relate specifically to the math skills and functions the water operators need to pass the test. There is a website introducing the information. The developers made math videos. So for every concept that is introduced, there is a movie, so students are able to have that repetition and reinforcement in their own time. They also have the video conferencing connection, three hours a week of instruction plus an additional hour and a half tutorial. So there is significant inter-connectivity in the course. To participate in the video conferencing, students will go to the Yukon College community campus. Unless we have a huge conflict, in which case I guess we will end

up having to purchase computers for them to access right from their offices. They may already have a computer, but this would have to have some specialized software to run so it gets increasingly complicated, but it also increasingly possible. Any of the website and the reinforcement activity is available right at the worksite just through the internet.

Anyone wanting to provide pre-trades training for women using distance education needs to look at a combination of activities, and doing the up-front work is really key. Last year, using Water Math as an example, we figured out where we had the technology available, and what technology we needed to have to make it possible for the other areas that are equally important. We managed to get the technology out to Kluane, Beaver Creek, Liard, places that were not part of the network before through videoconferencing now have the ability to do that.

The second key piece was understanding what people really need and what sort of training functions you need to address. Have the partners you are working with totally on side. That way you have a more valid curriculum, because it represents the industry you are trying to develop for. I think that had we said “Yeah we know everything and we’re just going to put these math bits together” it just would not have been meaningful for people. But if you’re going to take the time to do it, then have that dialogue back and forth, always ensuring that you are as right as you can be in what you are including.

Then looking at the sensitive nature of so many of our areas, I am lucky in that the industry training that we have done is preparatory. I am not in the situation of having to deliver something that is almost unreachable to some. So making sure that looking at the whole gamut of who is in the communities. There is such a range of skills, no matter where you go. Same as in a bigger community, it’s just bigger so there are more programs available to people based on where they are at. The toughest thing with the smaller places is how do you come up with something that is respectful and is really meeting their academic needs and is actually helping them to get the skills they need to do their job better? It’s keeping focused on what the job is and then being able to go from there.

We are really happy that we did it. The professional development opportunities for our instructors in participating in it has been great, par none. The benefit to students because of that, the ownership, the excitement of instructors gets infectious. Instructors also feel good about it because they have had that dialogue with industry and are not worrying “Oh my goodness, this could be way off”. Everybody still thinks that, the first time you go through, but there is more confidence.

I love the fact that the Federation of Labour in the NWT is making women in trades a priority, it is an exciting initiative.

Simone Rudge
Instructor Developmental Studies
Yukon College
Box 2799, 500 College Drive
Whitehorse, Yukon, Y1A 5K4
Phone: 456-8606
Fax: 668-8828
srudge@yukoncollege.yk.ca

Over the past couple of years I have offered the Apprenticeship Preparation Program (APP) as part of our Developmental Studies offerings. They have so far consisted of having a math course, that runs every day from 8:30 – 10:00, a science course that runs every day from 10:30 to noon, then in the afternoon, trades related courses. They go downstairs and do WHMIS training, and explore different trades. They do intro to carpentry, small engine repair, rigging and hoisting, welding, basic home electrical wiring. These are short courses that are regularly offered here at the College, but they were put into a package for the APP program so that students are able to do it all day, almost every day of the week.

The APP program is separate from the Women Exploring Trades and Technology program (WETT). The Women Exploring Trades and Technology, I think spring of 2006 would have been their first intake, and it didn't have such an academic component. It was some communications courses and gender issues in the workplace as well as a similar collection of trades-related experience like our afternoon program had. So what it was not including was the science and math components.

The Apprenticeship Preparation program is pre-pre-employment. Most of the students who came either hadn't much experience in the trades and wanted that type of experience, or had experience in the trades but were weak academically. We had both in the program. A lot of it was exploration into which trades they might be interested in, or finding out if they really were really interested in a trade. They had the idea that this was a good idea, come to the College and "I don't know which one I want to do". So this was an opportunity to get a chance to look at a two week chunk of each of the trades. Students in both the APP and the WETT programs challenge the Trades Entrance Exam at the end.

The APP was designed for students in general. Admission is open to either gender, although we did get almost exclusively men. I do not recall any women students in the APP program until this year. I think the program is geared to be successful for women, perhaps it's just in the advertising for the program. The plan for this spring is to do an APP program that is specifically for women. We will use the same curriculum materials for math and science and exploration of the trades program that the APP program is, but it will be advertised as the Women Exploring Trades. The big advantage is that they will have a woman instructor, which often helps encourage women doing math and science. When women are doing math and science, it is sometimes seen more as a

male oriented field of study so I think that having a female instructor will be helpful. The math itself and the science concepts are very life related kinds of concepts. The text we use ties it very clearly into real life. I think that women will see the connections just as easily as men see the connections to what goes on.

We have an APP program starting in late October (2007), it will be offered by distributed learning, by video conference. We will have some in-class students here in Whitehorse, then connecting with students in the communities. We did one session like that already last year that Faith Whiting was the instructor for. Mainly they were connecting with the Carcross campus, because in Carcross they had a construction project underway there so they were training for employment in the construction project so it was mostly carpentry apprenticeship students that were in that program. I think they had one woman in that program. It is possible for students in any community to take the program through distance education.

What ends up lacking in the distance education option is the afternoon components where they are exploring trades in the afternoons. So it will be just the math and science that is being offered, and students will be encouraged to take any of the short courses that are offered in their own home communities. Not all of the hands-on short courses are offered in the communities, and not all of the time. Some communities offer different short courses, for example First Aid, WHMIS and Transportation of Dangerous Goods are offered regularly, but the Introduction to Carpentry and the Introduction to Welding would only be offered sporadically. So we encourage students to take as many of them as are available. I think there are not very many women instructors for those short courses in the communities.

The APP program that is specifically for women will be offered on campus in Whitehorse and not by distributed learning, it will be an in-class session. There are no plans at this time to offer an APP program specifically for women by distributed learning to the communities.

Getting a good textbook was really a challenge. We searched a long time to find Mathematics for the Trades, A Guided Approach, Canadian Edition, by Robert Carmen, Howe, Saunders and Mills, published by Prentice Hall. That is the text that we use for the math. It has a logical sequence, and clear explanations. Its starts very basic and gets to the level that we need in a reasonable kind of pace for most of our students.

We were not successful in finding a science text that we were happy with that covered all the topics we wanted to have covered in an introductory way and yet with enough depth that we thought would be most useful for students. So we recommend that campuses have on hand a physics text called Conceptual Physics that does deal with concepts very well, and is meant for introducing people who don't have a science background to physics concepts. It uses the kinds of language that make it a little more readable, but it does not cover everything. We have collected bits and pieces from the Internet and from other texts and put them together in a binder so students have resources in different areas. We are still looking for a good science text. We've got what

we made, but it would be really nice to have a text that dealt with concepts in a clear and straightforward way, and covered the breadth of concepts that we want covered. I don't know that there have been any texts developed specifically for the north. We did look at the Northwest Territories Apprenticeship Support Materials packages and found that they lacked depth in lots of the concept areas. We still use them, along with the binder of materials, but they needed filling in.

I do recommend Conceptual Physics. Paul G. Hewitt, is one of my favourite texts, although he doesn't cover all of the individual topics we want covered, the way he covers topics is very good for people who don't have a science background. A lot of his texts have been written for first year university courses where people did not take science in high school. Not so much focus on number crunching, just on the ideas and why those principles apply.

The Apprenticeship Prep program was paid for by Advanced Education and we developed the program in co-operation with the Yukon Territorial Government. I am not sure how the Women Exploring Trades program will be funded. I am assuming that the Yukon Women in Trades will also be involved in that. They have been the spearheads on that program.

English literacy is not directly a part of the APP programming. We do CAT tests for reading comprehension and vocabulary, basic math skills and algebra. We are looking for good reading comprehension. Part of our criteria for getting into the Apprenticeship Prep program is that they have good reading comprehension. There is no specific English component in the program but there is a lot of reading of science materials. So even though there is a reading component required for writing the exam, it is taught more holistically as part of the science curriculum.

The APP has been offered by distance education. Faith had students in Carcross, Dawson and Mayo and, at the end of October, we will be offering a second distributed learning option of Apprenticeship Prep math and science only. We use video conferencing to deliver those programs. They get texts sent to them, the binder of science materials, the NWT Apprenticeship Support Materials for science, and the Mathematics for the Trades text. They come to the community campus, they are connected by video conference to an instructor in Whitehorse, and they have tutorial support at the community campuses as well. There are not a lot of assignments, but they do write quizzes every day. Because the goal of the APP program was to prepare people to write the multiple choice Apprenticeship Entrance Exam, writing multiple choice questions is a big focus in the program. The concepts of the previous day are tested in five question multiple choice quiz questions every single day to test the previous day's concepts and to get more practice in writing multiple choice tests. That will be available on-line for the distance students. They will complete the quizzes on line and they will be graded here. The students will know which questions they got wrong while they are writing it and the results are sent by email. The software to operate that program is Hot Potatoes which was developed by the University of Victoria.

If someone were to develop curriculum that would be useful to me for the APP or WETT programs, I would want to be involved so it covered what I needed. I think that paper texts that people can have in their hands are very helpful, along with other electronic forms, whether it is a web page or a program on a CD. It doesn't really matter how else you package it, it still needs to be packaged in a book that people can take with them and open at home or in the car. I think this is true for both classroom and for distance learning.

My advice to community organizations wanting to provide pre-trades training for women would be to make sure there is some math and science training - it is really helpful. The questions on the Apprenticeship Entrance Exam are all math and science. What they are mainly finding with apprentices is that when they go to write the second and third year exams, students find that their math skills in particular are weak and often their grasp of science concepts as well. It is not that they don't understand the concept itself, but they don't know the words to use to describe the concept so the questions are difficult to answer because they don't have the words. It doesn't make sense when they are reading it. It is the vocabulary of science that is often lacking.

Hands-on training is also very important. There is nothing like being able to actually experience the physics concepts by actually doing work in the trades. Women often tend to be a bit smaller, so understanding physics really makes a big difference in knowing how to maneuver some large piece through the saw. I think there are certainly things to be gained by having women instructors. I think it is particularly helpful that our carpentry instructor is a very small woman. She shares some of the things she has learned - actually using your head, because you can't man handle it, so how do you get to do the same thing smarter instead of harder. She is an instructor in both the APP program for men or women and in the WETT program for women.

Connecting to women in remote communities for academics is not an issue at all. For the communities, what is going to be really challenging is being able to get them the kinds of hand-on experience doing specific tasks. We found that when there is a project in the community, like training for a specific job opportunity that is coming up, often that is best. Someone who is experienced can go out to the community and spend time on say a four month training program where they actually do some hands-on work as a part of the APP program. Half the day on academics and half the day with hands-on learning. It helps both. The academic portion helps explain why you are doing some of the tasks in hands-on, and the hands-on helps make it real, so you know why you are doing the academic parts to go with it.

Community projects in the trades are a good incentive for the APP program. You need a bit of a cohort to be able to push through something like that so that everybody stays motivated and can make it all the way through. We've had other programs where there are only one or two students from each community and it can be a lot tougher. It's a lot easier if there is more of a group in a community that is going through it, so project-based courses where there is an event coming up tends to get a group together. I think that helps a lot in getting through all the material. Yukon College would not be directly

involved in the construction projects. But when there is a project going, that is when the training opportunity tends to be more successful.

Tom McBee
Apprenticeship Preparation Program Instructor
Yukon College
Box 2799, 500 College Drive
Whitehorse, Yukon, Y1A 5K4
Phone: 668-8831
Fax: 668-8828
tmcbee@yukoncollege.yk.ca

My role at Yukon College varies, but now it is College Preparation. The term College Preparation is kind of a mis-nomer, we've often thought that would be better as "College and Career Preparation". I've done academic upgrading for people entering from the trades to university. So when I first started at the College, half of our job was related subjects with the trades so our division taught the math and communications for the trades, I did a lot of the math for the trades in the Developmental Studies area.

I have not been involved in any pre-trades training initiatives that have specifically targeted women. In the past when I taught in the trades programs, there were women in the program. Simone Rudge and I developed and taught a pre-trades qualifying program, sadly there were not any women in that program but it was open to women. I am aware of the Women Exploring Trades program, there are a lot of parallels between that program and our pre-trades program.

The pre-trades program was originally academics in the morning and applied stuff in the afternoon. I don't think you can say "women should be taught trades this way and men that other way", I think there is a lot of overlap. Particularly in the first year, there were a number of folks in the pre-trades program that had not been exposed to trades in any way shape or form whatsoever. Some of the men were not what you would think of as traditional guys going into trades. The most trade-related job some of them had was as a waiter so they had no background or experience or exposure to trades whatsoever. So the afternoon was very similar to the Women Exploring Trades program, there were a number of ticketed programs they could get, Transportation of Dangerous Goods, First Aid, Rigging and Hoisting, to name a few. Then there were also short courses that were similar to the public offerings, like Small Engine Repair, Basic Home Wiring, a Tool course. Some of the guys who had more of a background did well on those, some of them thought it was a waste of time, and maybe it was, and some of them thought it was a waste of time but it highlighted all their bad habits. But a number of folks hadn't been exposed to it, so it was really good, they got a sense of what the trades were about. In some cases they decided they liked the trades and in some cases they decided they didn't.

That's been the model as I understand it, with the Women in Trades program, there's a lot of hands-on stuff. I have been teaching sciences for 20 years, all of my courses have a great deal of lab work so it's somewhat similar. So I'm very much in favour of a program like the Women in Trades where it's a group of women who are in the shop and there's no guys around to think that they should be doing all of the heavy dirty stuff or that the women think they shouldn't be doing it. There's sometimes a little bit of awkwardness in labs with that and you wouldn't get that with women in trades.

You didn't get that so much in a group of guys when there was some guy who was completely unhandy, people might help him or they wouldn't, but nobody thought that they should or he didn't feel that he should ask somebody. There are similarities, but having a specific group of women in there, you could just focus on the learning, it was fantastic.

The biggest problem in previous actual trades training, it tends to be more of a problem with the men, the men tend to be a little less academically prepared. There is the knowledge and academic abilities that somebody would need to actually be a welder and then there is also the academics that a person needs to get through apprenticeship training, to become a welder. Frequently we run into problems with students who are usually the academically weak ones, who rebel against the training in the pre-trades program that's allowing them to complete the apprenticeship training. They are saying, "When will I ever need to know this stuff when I am a welder?" Well perhaps they could get a job as a welder where they don't need to know that stuff, but they are going to have to get through the apprenticeship program, and they're going to need that to get through the program. So I'd say that is my biggest concern. In the past, perhaps Yukon College has been a little bit guilty of focusing more on what a student needs to get into a program rather than on what a student needs to get through a program. We've had underprepared students entering into apprenticeship training and they have not had the academic skills to get through it. That is my biggest challenge.

Most of the instructors are very good at showing students how academic knowledge fits in with what they will need in the real workplace. But if someone is determined that they don't want to hear that - before you can teach anybody something, I guess my model is a constructivist model, which is that people think they know everything about everything, so before you can convince somebody that you are right, you have to convince them that they are wrong, and that can be pretty difficult sometimes. It's somewhat difficult for me to respond to that challenge, not being a tradesman. So I can tell them what I know of the trades, and certainly I've worked in industry, and my family has worked in industry. But those hard core students are not necessarily going to believe it. Nor even do they always believe the instructors down stairs, because they think they are pushing a particular agenda.

Typically, the women who have been in the trades program have been, on average, much more academically prepared than the men, and also have been much more mature in terms of their learning.

My advice to anyone wanting to plan a pre-trades training program for women, is that the hands-on is really important. I can think of the first pre-trades program that we had. Our weakest student, who one would have thought had some background, and our strongest student, academically speaking, both decided the trades were not for them. Mainly, they didn't have the hand-eye co-ordination for it. They just figured they'd never be good at it, and if they did get a job, they'd get themselves killed. So that four months for them wasn't a waste of time, in that they learned that was something they did not want to do. So many people now are saying "Go into trades, go into trades", and you are looking at a year before you realize that you don't like the trades. So Women Exploring Trades is a good avenue for women to explore the trades and find out if they want to devote that time to doing that. It doesn't necessarily mean they have to do it for the rest of their lives. It's a big investment, so it's nice to know if you have an aptitude for trades and whether you enjoy doing that sort of thing.

In the last couple of years Yukon College has offered the Pre-Apprenticeship Program through distance delivery. The first two years, we did it on site here. Our students went downstairs in the afternoons and did various components similar to the Women Exploring Trades program. The last couple of years, the academics has been delivered through video conferencing. We have partnered primarily with different first nations, so there has been a project to put up a building in Carcross, students worked on that, did the hands-on stuff in the afternoons there. I think Dawson has done one, Carmacks is looking at one this year. It was a neat way to do the academics and the hands-on, to look at the communities where there is a project that needs to be done then we've offered the academics. The projects were initiated by the first nations groups doing the construction in their communities, and Yukon College partnered by offering the academics. The distance education was available to anybody, but it was primarily focused for those communities. So if there was no construction project going on their community, they would not have received any hands-on training as part of the learning package.

Advertising for pre-trades programs at the College has been a bit of an issue. With a lot of our trades programs, we often don't know if we are offering something until the last minute so it doesn't get advertised until the last minute. We are constantly saying – everybody, not just the instructors, - that we'd like to have a long term plan so that we could start advertising further down the road. Advertising is usually in the newspaper, in the rolling ads, radio spots.

Literacy and numeracy have been issues for us. Alberta was concerned with the number of students who were getting into the apprenticeship program and not progressing beyond the second and third year, primarily due to academic inadequacies. So they instituted an entrance exam, a pre-trades qualifying exam, with the intention that it would do away with the grade level entrance requirements. So a student would not need grade 11 to get into carpentry, they would need to pass the Level 3 exam to get in. I'm not exactly certain how it came about, while there was a lot of interest expressed in that idea, there was some unhappiness with how it was done and the

thought that perhaps a made-in-the-Yukon version might be a little better. We were approached by Advanced Education to develop this pre-trades program to prepare people for this exam. In the course of that process, we became somewhat unhappy with the exam and were asked to write a Yukon version of these pre-trades qualifying exams. The exams are another option, they have not replaced the grade equivalents in the Yukon. So before a student can enter into an apprenticeship program, they have to have math 11, if that's it, or they have to pass this pre-entrance exam. The academics in this program we developed was to prepare a student for that.

Particularly at Yukon College, but even in the schools, things sort of split, then go unevenly. A lot of our trades programs had Level 3 as a mathematics pre-requisite, it didn't have algebra. So for instance, they would find the perimeter of a square and say that's enough geometry. Well, the geometry a tradesman has to do is very complicated. There's not a lot of algebra in it, but it's still very complicated. So we developed an applied mathematics and an applied science, which is largely literacy, using some text books that we found specifically for the trades. So it is very trades-specific mathematics, but it's not simple. A lot of the time, "trades-related" has meant "simple" and it hasn't been preparing people well enough for the trades.

I think the program that we developed is pretty good for preparing people to pass the entrance exams. The math text book we use, I find it absolutely outstanding. We inherited the NWT Apprenticeship support materials. Writing a text book is a huge undertaking. Coming up with one good example can take an hour. The NWT, partnering with a number of groups and looking at a number of things, contracted the job to the Genesis Group. It is a huge undertaking. We found that the materials were just plain inadequate. We searched around for a math text and happened to find this one math text book. I am absolutely thrilled with it, I think it's absolutely fantastic.

I still think that face to face training is the best. The closest you can get to that for distance learning is video conferencing. All of the programs I teach here, the chemistry, the physics, they all come with these wonderful websites but none of my students ever go to them. Probably more of them would if I specifically set aside time and booked a computer lab and took them down to it. But I don't know how many of them would use it, and it takes so much effort to develop. These books have companion websites. Students often get a kick out of doing something on computers. So if a textbook were on line, students might enjoy using it, but especially for trades, but it's still the hands-on stuff, the hands-on academics that is most important.

Half of our course was applied science. That's been the challenge doing it by distance, Simone would spend an hour or two every day rounding up the materials to teach the course. So for science concepts of viscosity, she would have a collection of ten different industrial oils and they'd test them. Also, we also had a number of projects in the program that students had to work on, things like trebuchets and catapults. Faith Whiting, who taught the program for us by distance education last year, had to struggle with what she could have students do in the communities. She made up boxes of materials that were sent out so they could do most of the activities with stuff they had

there but when you have students in class, there is a lot of running around you have to do to get students to put things together properly so it's more difficult to do by distance. You can't prep the materials for them. So she had to struggle with determining what applied science we do here in the classroom that can be done via distributed learning. Because it was video conferencing, the students couldn't do it from their homes, they had to come into a learning center to do it. So there was the opportunity to send the materials there. There will always be an instructor there, but not necessarily one that can help them with very much.

If the intent in a distance education program is training for women, they should probably stick to it. If in Norman Wells they are planning to have a pre-trades training program with spaces for eight women and three women apply, what do you do? Do you open it up for five men?

I am a strong believer that people need the right tools in order to be successful. In our program, we had fairly rigorous science and mathematics, even though it was trades related, to give people the background, and so that people could exist in somewhat of an academic background. A number of people I know who are tradesmen have said, "Well my dad was a tradesman and he started the same year I went to university and I go to visit him, so I know what he did". Those four – six weeks that students are in school outside the Yukon are incredibly intense, and there are massive amounts of homework required in order to be successful. All of those second and third year apprentices that have been at it for 20 years in Alberta sort of attest to that. Electrical apprentices talk about how incredibly difficult their third and fourth year training outside at NAIT or SAIT was, it was extremely difficult and people were dropping like flies.

So when we started building this pre-trades qualifier, we had it in our minds that it would need to be rigorous. Let's hope that by being acceptable into this program and doing this program, that they have more of a chance of getting through. One of the problems we had was that the entrance requirements for getting into the Apprenticeship Prep program were as high as, or sometimes higher than those for getting into the trades. So it was harder to get into the Apprenticeship Prep program than it was to get into the Pre-employment programs. Some of the instructors were saying, "Why would they do this?" So we say, "Well what are your completion statistics in the pre-employment programs?" The Apprenticeship Prep program we did was four months. It is similar to the Women Exploring Trades program in terms of time.

Walter Brennan
Acting Director Labour Market Programs and Services
Advanced Education
Yukon Territorial Government
Box 2703
Whitehorse, Yukon, Y1A 2C6
Phone: 667-5727
Fax: 667-8555
walter.brennan@gov.yk.ca

and
Marjorie Copp
Labour Market Programs Services Officer
Advanced Education
Yukon Territorial Government
Box 2703
Whitehorse, Yukon, Y1A 2C6
Phone: 667-8751
Fax: 667-8555
marjorie.copp@gov.yk.ca

Walter: Our primary role here is as a funder, probably more than anything else.

Marjorie: I work with the Women in Trades and Technology file and I also work with the Skills Canada Yukon file and the Women Exploring Trades and Technology Program that is done at the Yukon College. Women In Trades and Technology (WITT) administers it. I am also involved with the Young Women Exploring Trades conference for Grade 8 girls.

Walter: We are also funding a program with the Liard First Nation.

Marjorie: That is Women in Building Trades, that's 20 women that have been pre-screened, I believe that is a 16 week course. Basically, it is to introduce First Nation Women to entry level skills. The Liard First Nation have purchased a couple of hotels and an apartment building and the women are renovating these buildings and learning about the trades at the same time. After the course is done, they are hopeful that these women will be employed within the community. That is what we are looking at, training for employment.

Walter: We support projects that provide training that lead to employment or lead to further training at a post secondary institution. We are more focused on outcome based projects. Is this training going to lead to employment or help you retain your employment? The Liard course is an introductory course, for exploration. In some cases it may lead to an apprenticeship and in some cases it may not. I would not call it a pre-

apprenticeship program, it is an introduction to the building trades rather than a pre-apprenticeship program or a pre-employment program. Sometimes the terms are difficult to understand unless you work in that particular environment. Some of the things I say about apprenticeship may not be exactly right because I don't have the terms right.

We don't accept proposals from individuals, we accept proposals from organizations. In some cases, such as Dawson City and Carmacks, we have community training funds out there. So if an individual from one of those communities comes to us looking for training, we refer them to their community training fund. So if for example, an individual was looking for some training in tourism, we would refer that individual to the Tourism Industry Association, because we also have a training trust fund with the TIA to provide training specifically for tourism related jobs.

Marjorie: When it comes to programs for women, what makes them successful is women teaching women in a comfortable environment. I guess the Women in Trades and Technology started out with a conference for Grade 8 boys and girls. It wasn't as successful as having the Grade 8 girls on their own. Girls on their own are more apt to try things out. We found that when they were with the boys, the boys kind of took over. They were more comfortable handling the power tools, and things like that. In the girls only environment, the girls help each other out, they learn from a woman instructor much of the time, it's a good role model for the girls as well. They have a great day in a fun environment learning a new skill.

It's hard to get statistics from the high school about how many girls enter trades classes after attending the conference. We have asked them before, but they don't track that sort of thing, but that would be really good information for us to have, if they went into the industrial arts program in Grade 9 or 10.

Walter: At the same time, that would not be difficult to track if we decided to make it a priority. I think those stats are there, we just haven't accessed them.

Marjorie: We just have to put some money into it, and have a body to do that. I think that the Women in Trades and Technology are developing a database to track how many women are in trades, whether they are still working in the trades, how many have a journeyman ticket. Once that's in place, it will be a good working tool.

Walter: Funding is always a challenge. We have a limited pot of money and it's spread throughout the territory. We're getting demands on that pot of money that hasn't really been expanded so there may be times when a proposal may come through that we cannot support because we don't have the money, not because we don't have the desire. We fund Women in Trades and Technology. The last couple of years, we have funded the Women Exploring Trades and Technology program at Yukon College. We are also funding the project at Liard. We feel that we are providing a lot of support, while at the same time knowing there is always more that can be done. In each of those cases, we had not been able to fund the request at the level that those organizations

would have liked. There may be a possibility of getting some funding through the Community Development Fund, but that's project oriented.

One of the other challenges in regard to Women Exploring Trades, is that there are a lot of social barriers out there with regard to alcohol and drug abuse, or family violence and child abuse. Ladies are sometimes single moms who are trying to do something to better themselves. Those are always challenges that infringe on a person's ability to be successful. We are not the agency to deal with those challenges. These are not quick fixes by any stretch of the imagination. Doing training for a trade is not a quick fix either. In many cases it is a three – to five year apprenticeship program to get to the end. So it isn't easy to do if you have a number of impediments restricting your ability to do it.

We don't liaise directly with Health and Social Services, that's a different ballywick. We do provide funding to Health and Social Services to help their clients with training. In some cases, some of those clients may be entering the Women Exploring Trades program or other programs that may be offered at Yukon College for example, but we don't deal specifically with Health and Social Services, we say these are the social issues that are there, fix them.

Marjorie: With the Women Exploring Trades and Technology course, if they have a woman that is not eligible for Social Assistance, or unemployment insurance or any other financial assistance, Advanced Education provided a financial grant, a training allowance, for the student to allow them to be able to take the course. But that's the only thing that financially we could help them with.

Walter: We have a fund in Advanced Education called the Community Training Funds, through the Territorial Government, that is how we fund some of these programs.

Marjorie: Our programs are advertised through our clients, we would provide money for Women in Trades and Technology and they would do their advertising through their programs and conferences and any other events they would have. Also when we provide funding we do a government press release and advertise that way, but by and large it's through the client but we provide the dollars for them to do the advertising.

Walter: Through our community training funds, we support a number of literacy organizations, we support Yukon Learn, we support the Yukon Literacy Coalition, we also have a program called Literacy Action Committee, which is project driven, so there are funding venues that are available, but they are not specifically for women.

Walter: If I could offer any advice to anyone wanting to start up a pre-trades training program for women, I would say "You are equal". It's basically been proven that women are just as good in trades as men. There may be some occupations where physical strength is an issue, for example being a driller on an oil rig is very labourious work, but by and large, in today's trades environment, women are just as good as men and sometimes much better.

Marjorie: And also, it's been documented that if you don't have physical strength, you look for other ways you can do lifting and things like that by using machinery to do the work for you. I just read an article recently, the guys were taking note of some of the techniques women were using and were adopting them as well, you can save your back.

Walter: When it comes to curriculum development, a suggestion is that programs be competency-based so people can move from one section to the next. That will work for some and not for others but for trades training it has been an effective model in a wide range of trades.

Marjorie: Yukon College is delivering the Apprenticeship Preparation Program (APP) by distance education. When it comes to distance learning, I think the research would definitely be important for someone planning on doing e-learning type courses. That seems to be the buzz word now. I work with the trades school as well. We found that you have to have reliable and competent tutors, and you need to be able to do follow up with students on a regular basis and that the attendance is kept up. It is being sold right now as being very convenient because the individual doesn't have to leave their community, which is a big thing. They can do it right in their home. But you have to have self discipline in order to be successful, and students have to realize too that it's time consuming as well. There's a lot of reading. You have to have good reading skills to be successful at those types of courses.

Walter: In another area of our work, Student Financial Assistance, Marjorie and I deal with some private career colleges. There are a lot of fly-by-night private schools out there that are less than credible. So that's what we mean when we talk about doing the research. If an organization is going to spend money on trying to get training this way, it's probably best if you could to work with the publically funded institutions rather than private career colleges. There are some very very credible private career colleges out there but in the last couple of years, in Alberta, BC and Ontario, there's been a lot of questionable organizations out there that have been closed down.

Marjorie: A lot of the time the training that's being offered, you have to make sure that the standards are in place and that it meets the criteria for what is required in that particular trade or program. A lot of the time it's really expensive. You wouldn't think it would be, but it's a good business. You have to be really careful. Not everybody learns well that way either. A lot of people have to be hands-on. Particularly for the trades, you have to have the visual part of it and hands-on in order for it to be successful.

Walter: We funded the Apprenticeship Preparation Program that ran by distance in Carcross and other communities.

Marjorie: And you have an instructor there if you run into a problem you can get some help. There is nothing worse than having difficulty and you get a tutor that's got a really strong accent, or you can't get ahold of them, and then you're stuck.

Walter: And people have a variety of different types of learning styles as well.

In the Yukon, just about every high school and all the community campuses have video conferencing capabilities. That provides an opportunity. For essential skills and literacy training, there are links in the community to Yukon Learn or the Literacy Coalition that can provide avenues for people to get those basic literacy and numeracy skills. It's the same when we look at the Yukon College APP program. We're funding a pilot right now with Yukon College going into Quaanlan Dun at their House of Learning with the APP program by videoconferencing.

There is some technology that is out there already. We do have a great advantage in the Yukon, most communities are linked with high speed internet. You go to many communities even in Ontario, they don't have high speed internet. So we have some of the infrastructure in place I guess to be creative.

Marjorie: With the Women in Trades and Technology, they have gone out and done courses in the schools. And they offered a home repair course in Teslin for women, and that was very successful. But it's a lot of organization, it's a lot of preparation work. It's really important, this is key, you've got to have a support person you know you can rely on, that will wind things up, make sure you can find the keys when you get to the community, things like that. Otherwise you are running around when you get there, trying to find out whoever has got the keys to get into the school or whatever. Also for the promotion, it's good to have a key person in the community as well.

Walter: One of things that Yukon College is working on, they are trying to put together a few portable classrooms, that they can move with a tractor trailer, so they can go to a community and set up a training program then just move to the next community. I don't know what stage that is in, but I think they were looking at some of the construction trades, carpentry, maybe plumbing and pipefitting, maybe welding. But I don't know exactly what stage they are at with that. But it certainly is something they have on their radar. They could use it to do a hands-on training component, as well as theory based training.

Marjorie: Also, Skills Canada Yukon have formed Skills Clubs in pretty much all the communities in the Yukon. They have got a journeyperson to be the instructor for the club. It's a variety of different trades: TV video, fashion design, carpentry, you name it. It starts at 11 years old, that is a good introductory tool as well to start them when they are younger. I think there are 72 clubs. We are involved primarily as a funder.

Walter: Trades are not a quick fix. It's a career choice. You need good support systems in the community. We need a career counselling component to help individuals make good decisions, looking at their aptitudes and temperaments. There are a number of instruments that people working in career counselling field can use to help individuals make decisions.

Marjorie: We have to educate the educators. They are always pushing university education all the time. Trades are mentioned as an alternative if a person is having trouble or dropping out of school, it's to change that way of thinking as well.

Walter: Say for example, a person gets into an electrical or instrumentation trade program, you can't do it with Grade 10 math. It won't work. It's the same with automotive technician, or a heavy equipment technician. They are not just called mechanics any more, because the work is getting very technical. You need to be able to understand how circuits are developed and understand the math and the physics that goes along with it. In some other trades, maybe you don't need grade 12 math to be a baker or a cook, different trades have different levels of academic standing you need to enter the trade and to be successful at it. Some people may say that "English doesn't matter", or "I'm not a very good reader". When the individual goes out for an in school training program each year, if you don't have basic English literacy and numeracy skills, you're not going to be successful. You may be able to do bits and pieces of the job, but you are probably not going to be the person who is going to train the next apprentice.

At the same time, let's not put artificial barriers there. If a person does not need grade 12 math, let's not ask for it. In many trades you don't need that level of math, but you do need a certain level.

Do students understand the importance of getting the math and science courses? That's a difficult question. All we have to do is look at our own background, when we were in Grade 9 or 10, 11, and 12. As students, how much attention did we pay to it? The shoe is on the same foot. Some students are quite cognizant and others are not.

Marjorie: I can remember, "What do I want to be, what do I want to be?" In Grade 8, it's "Oh I've got lots of time to figure that out". The Women in Trades and Technology, last year, they wanted to have a Miss Infinity conference. That was to encourage girls to stay in math and science academic courses and to introduce them to different careers in which they would need math and science. If they were thinking of dropping them or they were having difficulty, to encourage them to keep those courses, and find ways of finding help for them to stay in.

Walter: One of the areas that may be lacking in the high schools is adequate career counselling. There is also the aspect of having good labour market information to say "These are the careers that are going to be on the horizon. These are the occupations that are in demand, in the Yukon or Alberta or BC, so that students can have some basic information at their finger tips that would help them make a decision.

We work with Economic Development, Energy Mines and Resources, the Bureau of Stats and Service Canada. Each year we do an environmental scan of what growth areas are going to be in the Yukon. The trouble with that is, let's say for example, if you do a labour market survey in September, and you ask the same questions in May, to employers, because we are tourism service oriented in a lot of our jobs, we're going to get two different snapshots. In May, they can't find people to work in the kitchen, or

shuttle cars or make beds. That's a low skill area. If you do the same survey in September, it's a different story. They are just snapshots. That's why we say we need to deal with industry in a broader scope to be able to get labour market information that is current and say, here is what the projections are going to be. In mining right now, we know there is a lot of exploration going on right now, there's going to be exploration jobs for a number of years. What are the other occupations that are going to be in demand? Those are projections that can be made, based on where base metal prices are and based on the exploration that has happened. For example, we are probably not going to train too many people to work in the oil fields, we don't have an oil industry, or if we do, it's very small.

Those are the sorts of things I think high schools need to have so students have access to information to help them make a decision. If a child says "I want to be a nuclear physicist and I want to work in the Yukon", well you may be wasting your time, because there are not going to be those kinds of jobs here or be prepared to move. That is taking it to a level of sarcasm, but those are the sorts of questions that students need to be asked. "Do you like working indoors or outdoors?" There are a number of instruments that are out there that career counsellors use to help students make a decision. They won't say "You should be an electrician". They may say there is a cluster of occupations here that would suit your likes, dislikes, temperaments, and aptitudes.

Marjory: One of them would be "If you don't like working with your hands, that would be pretty critical for learning a trade".