

# Building Basic Skills for Adults in Small Remote Communities

MARCH 2002

FINAL REPORT TO THE OFFICE OF  
LEARNING TECHNOLOGIES PROJECT #99561

THIS PROJECT WAS MADE POSSIBLE WITH FUNDING SUPPORT  
FROM THE OFFICE OF LEARNING TECHNOLOGIES



Lakehead Public Schools

Contact North



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Funding support from:  
Office of Learning Technologies  
Bureau des technologies d'apprentissage

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# ACKNOWLEDGEMENTS

## Building Basic Skills for Adults in Small Remote Communities

The Building Basic Skills in Small Remote Communities Research Project involved an enthusiastic team of researchers, facilitators and participants with whom the project's success relied upon.

The project was funded by the Office of Learning Technologies (Human Resources Development Canada) and the collaborative partners, Contact North/*Contact Nord*, the Balmoral Centre for Adult Studies and the Thunder Bay District Social Services Administrative Board.

The value of the project and this report has been greatly enhanced by all those mentioned.

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### Building Basic Skills for Adults in Small Remote Communities

#### **OFFICE OF LEARNING TECHNOLOGIES**

In 1996 the federal government established the Office of Learning Technologies (OLT) within Human Resources Development Canada (HRDC), as a partner in building a culture of lifelong learning.

The OLT works to raise awareness of the opportunities, challenges and benefits of technology-based learning and to act as a catalyst for innovation in the area of technology-enabled learning and skills development.

The vision of the OLT is to "contribute to the development of a lifelong learning culture in Canada." The mission of the OLT is to "work with partners to expand innovative learning opportunities through technologies".

This project was made possible with funding support from the OLT.

#### **CONTACT NORTH/CONTACT NORD**

Contact North/*Contact Nord*, Canada's largest Distance Education & Training Network, provides Northern Ontario residents in small and remote communities with local access to programs and courses at the college, university and secondary school levels, in English and in French.

In partnership for 14 years with secondary schools and post-secondary institutions, the Network provides access to a wide variety of programs and courses via audio, audiographics or videoconferencing to more than 11,000 learners. Contact North/*Contact Nord*'s Distance Education & Training Access Centres are located in more than 100 communities across Northern Ontario to link learners and instructors together to hear, see and interact with each other in real time.

#### **BALMORAL CENTRE FOR ADULT STUDIES**

The Lakehead District School Board's Balmoral Centre for adult studies is an adult educational/training facility serving a diverse multi-cultural and multi-aged community.

In operation for approximately twenty years, the Centre annually registers over 2100 students in various programs. Programs include: Literacy and Basic Skills, High School Credit Courses, English as a Second Language Program and Language Instructions for Newcomers. Distance Education has been an integral part of the Centre's programming.

#### **THUNDER BAY DISTRICT SOCIAL SERVICES ADMINISTRATIVE BOARD**

The Thunder Bay District Social Services Administrative Board delivers provincially mandated services on behalf of the citizens of the District of Thunder Bay in a reasonable/equitable/cost effective manner.

The Thunder Bay DSSAB works in partnership with all stakeholders (clients, staff and the community) to find innovative solutions to our collective problems and to realize people's potential to achieve self sufficiency and to break the cycle of social assistance. This is accomplished through a commitment to providing equitable access to quality services, including opportunities for life-long learning, that are responsive to people's needs, based upon communication, and the effective management of human and financial resources.

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## EXECUTIVE SUMMARY

### Building Basic Skills for Adults in Small Remote Communities

The Building Basic Skills for Adults in Small Remote Communities Research Project, a project made possible with funding support from the Office of Learning Technologies, examined the feasibility of developing and assessing literacy and numeracy skills at a distance using audiographics and teleconferencing technology.

Contact North/*Contact Nord*'s commitment to small and remote communities is well illustrated in this unique project. The study highlights new possibilities for improving access to basic education for residents of Northern Ontario.

Residents of many rural and remote communities throughout Canada are not within realistic reach of face-to-face basic skills training, yet they are often in the most acute need of such training. Literacy programs and tutor support are rarely available in these communities. To help answer these needs, project partners Contact North/*Contact Nord*, the Balmoral Centre for Adult Studies and the Thunder Bay District Social Services Administrative Board joined forces to design the Building Basic Skills research project, a distance learning study that was facilitated through Contact North/*Contact Nord*'s audiographics and teleconferencing Network.

The target group for this project was primarily adults, either currently employed or not, whose opportunities were severely limited by their current need for literacy upgrading. Program participants were either clients of Ontario Works Programs or residents who sought out a program through the local Contact North/*Contact Nord* Distance Education & Training Access Centre. All learners participated in 2 assessment sessions, which were administered by the literacy instructors via the audiographic technology (telewriter and speaker-phone system); a large group of the learners also participated in a 6-8 week program of classes using the same technology.

The research study revealed that both the adult

learners and the literacy instructors found the audiographic technology to be a valuable tool in basic skills training and assessment. The majority considered the telewriter easy to use, becoming adept after only a few minutes practise. The immediacy of the technology was also appreciated. The telewriter offered visual cues to both the participant and the instructor and provided opportunities for the learners to receive feedback during the process. By being able to talk with the participants while they were completing assessments and see directly what they were doing on the computer monitor, the administrator could glean valuable information. The audiographic technology also enabled a rapport between the learners and the instructors, a rapport that was considered important to the participants. The only modification requested was to make the telewriter 'page' larger, thus providing the learners with more space to write and work through numerical calculations. Overall, the Building Basic Skills research project was a positive experience for all participants.

This project has demonstrated that online literacy instruction and assessment can be conducted, and conducted well, with the use of audiographic and teleconferencing tools to learners in remote regions. Results of the Building Basic Skills for Adults in Small Remote Communities Research Project will further enhance the ability to provide access to education and training to the residents of the North.

The Building Basic Skills project has been continued as a program at the Balmoral Centre for Adult Studies. Contact Ruth Baker for registration details at (807) 622-6642 or rbaker@lhbe.edu.on.ca

Visit [olt-bta@hrdc-drhc.gc.ca](mailto:olt-bta@hrdc-drhc.gc.ca) for the complete final report of the Building Basic Skills For Adults in Small Remote Communities Research Project or request a copy at [www.cnorth.edu.on.ca](http://www.cnorth.edu.on.ca).

This research project was conducted in English.



*Le Projet de recherche sur la prestation de la formation de base pour les adultes des petites communautés isolées, réalisé grâce au soutien financier du Bureau des technologies d'apprentissage, s'est penché sur la faisabilité de développer et d'évaluer l'alphabétisme et les capacités de calcul à distance, et ce, à l'aide des technologies de l'audiographie et de la téléconférence.*

*Ce projet exceptionnel témoigne bien de l'engagement pris par Contact North/Contact Nord à l'égard des petites communautés isolées. L'étude souligne les nouvelles possibilités susceptibles d'améliorer l'accès à la formation de base pour les résidentes et résidents du Nord de l'Ontario.*

*Pour les gens qui habitent les communautés rurales et isolées des diverses régions du Canada, la formation de base face à face n'est pas vraiment à leur portée, et pourtant ce sont eux qui en ont le plus besoin. Les programmes d'alphabétisation avec le soutien d'un tuteur ou d'une tutrice sont rarement disponibles dans ces communautés. Afin de répondre aux besoins identifiés, les partenaires de projet Contact North/Contact Nord, le Balmoral Centre for Adult Studies et le Conseil administratif des Services sociaux du district de Thunder Bay ont développé le projet de recherche sur la prestation de la formation de base, une étude de l'éducation à distance menée sur le réseau d'audiographie et de téléconférences de Contact North/Contact Nord.*

*Le groupe cible du projet était constitué surtout d'adultes, présentement employés ou non, dont les possibilités étaient fortement limitées en raison de leur faible niveau d'alphabétisme. Les participantes et participants au projet étaient soit des clients du programme Ontario au travail ou des résidents à la recherche d'un programme offert par l'intermédiaire du Centre local d'accès d'éducation et de formation de Contact North/Contact Nord. Tous les apprenantes et apprenants ont pris part à deux sessions d'évaluation administrées par des alphabétiseurs utilisant l'audiographie (technologie basée sur le télécriteur et un système de téléphone*

*à haut-parleur); plusieurs personnes du groupe ont aussi suivi un programme de cours d'une durée de six à huit semaines grâce à la même technologie.*

*L'étude révèle que la clientèle apprenante adulte comme aussi les alphabétiseurs ont trouvé la technologie de l'audiographie précieuse comme outil d'enseignement et d'évaluation pour la formation de base. La plupart de ces personnes considèrent le télécriteur facile à utiliser puisqu'elles sont devenues adeptes après quelques minutes de pratique seulement. Le caractère immédiat de la technologie est aussi apprécié. Le télécriteur donne des repères visuels tant à la personne qui apprend qu'à celle qui instruit et il donne l'occasion à la clientèle apprenante de recevoir des réactions immédiates. Puisqu'il pouvait parler aux participants tout en terminant leur évaluation et voir ce qui se faisait sur l'écran de l'ordinateur, l'administrateur pouvait recueillir des renseignements précieux. La technologie de l'audiographie permet aussi d'établir un rapport entre enseignant et enseigné, un rapport important aux yeux des participants. La seule modification demandée a été d'agrandir la « page » du télécriteur afin de donner plus de place pour écrire ou faire des calculs. Dans l'ensemble, le projet de recherche sur la prestation de la formation de base s'est avéré une expérience positive pour toutes les personnes concernées.*

*Ce projet a démontré que, à l'aide d'outils comme l'audiographie et la téléconférence, l'alphabétisation et l'évaluation en ligne peuvent se réaliser avec de bons résultats dans les régions isolées. Il permet d'améliorer encore davantage les chances d'offrir l'accès à l'éducation et à la formation aux résidentes et résidents du Nord.*

*Le projet de prestation de la formation de base se poursuit dans le cadre d'un programme du Balmoral Centre for Adult Studies. Pour plus de détails relatifs à l'inscription, communiquer avec Ruth Baker au (807) 662-6642 ou à rbaker@lhbe.edu.on.ca.*



## SOMMAIRE

### Building Basic Skills for Adults in Small Remote Communities

*Pour consulter le rapport final intégral du projet de recherche sur La prestation de la formation de base pour les adultes des petites communautés isolées, cliquez sur [olt-bta@hrdc-drhc.gc.ca](mailto:olt-bta@hrdc-drhc.gc.ca) ou sur [www.cnorth.edu.on.ca](http://www.cnorth.edu.on.ca)*

*Ce projet de recherche a été effectué en anglais.*

# INTRODUCTION

## Building Basic Skills for Adults in Small Remote Communities

The goal of this project was to determine the feasibility of developing and assessing literacy and numeracy skills at a distance using audiographics and teleconferencing technology. A pre-test (entry level) and post-test (progress level) of basic literacy and numeracy were developed and transferred to an audiographic format (teletypewriter and speakerphone system). Adult learners, living in remote communities of Northern Ontario, were administered these tests via audiographic technology by adult literacy instructors. This technology was available to the adults through centres operated by Contact North/*Contact Nord* in their home communities in Northern Ontario. A study group was given the entry level test and, following 6-8 weeks of a literacy program delivered through the same distance learning technology, the progress test. A control group was given only the tests. Based on interviews with a sample of the adult learners and instructors, the tests and the testing procedures using audiographic technology worked exceedingly well for all the participants involved in this study. Due to a methodological error that occurred in this study it was not possible to analyse the test data itself to determine whether the literacy instruction component, which incorporated audiographic technology, made a difference. The pre- and post-tests were not constructed as equivalent measures; the complexities of variables make it impossible to determine instructional effect. However the study's findings regarding the value of the assessment process have considerable merit on their own.

### Background

Many rural and remote communities throughout Canada are not within realistic reach of face-to-face basic skills training, yet such communities are often in the most acute need of such training. Literacy programs often rely on tutor support provided by volunteers in the community. There are, however, communities that do not have literacy tutors and volunteers, or other resources to provide programs. This Basic Skills Literacy

program, using audiographics and teleconferencing, was designed as a response for those communities without direct support. With the assistance of basic communication technologies, such as audiographics and teleconferencing, it would appear reasonable and feasible to reach adults in remote communities to provide access to trained literacy instructors. These methods are replicable and scalable, and have the potential to significantly impact adult literacy and thus employability of those in need in remote areas.

### Objectives of the Project

The objectives of this project were to:

1. identify and adapt a suitable and valid assessment instrument for measuring adult literacy at a distance;
2. assess gains in student literacy levels after a period of instruction which utilized audiographic and teleconferencing tools;
3. evaluate the process from both the students' and instructors' perspectives regarding effectiveness and usability;
4. contribute to the body of literature regarding delivery and evaluation of literacy programs to small and remote communities.

With the exception of Objective #2, the primary objectives of this project were met. The efficacy of audiographics and teleconferencing to expand access to literacy programs to those in need in rural and remote areas, and specifically to provide the means to conduct reliable and meaningful literacy assessments was demonstrated through this study. The ability to assess gains in student literacy levels, however, was unfortunately circumvented as the pre- and post-tests were not constructed as equivalent measures. This circumstance was a result of unavoidable project changes. The original researcher accepted an international appointment and was no longer able to continue with the project. In the interim period while a new researcher was being sought and contracted, the literacy team constructed a

## INTRODUCTION

### Building Basic Skills for Adults in Small Remote Communities

progress assessment based on the needs of the students and the literacy program. This assessment measure was put in place before the new researcher could become involved. Thus, although the Study Group students did receive instruction via audiographic and teleconferencing tools, the contribution of this form of instruction to student literacy achievement could not be reliably assessed.

In partnership with the Office of Learning Technologies, Contact North/*Contact Nord*, the Balmoral Centre for Adult Studies and the Thunder Bay District Social Services Administration Board (delivery agency for the Ontario Works program in the District of Thunder Bay) joined together to identify and test an interactive assessment tool using audiographic technology to assess students in small remote communities for entry into and participation in a basic skills program.

Contact North/*Contact Nord* is Northern Ontario's Distance Education & Training Network. With an average of over 145 Distance Education & Training Access Centres in over 100 communities, Contact North/*Contact Nord* provides residents of Northern Ontario with access to lifelong learning opportunities via audioconferencing, audiographics, videoconferencing and the Internet.

The Balmoral Centre for Adult Studies' Distance Education Adult Upgrading program, based on guidelines published by the Literacy and Basic Skills Section, Workplace Preparation Branch, Ministry of Training, Colleges and Universities, meets all the criteria and guidelines set by the Ontario Literacy and Basic Skills Program.

The existing Distance Education Adult Upgrading program delivered by the Balmoral Centre was designed to meet the needs and interests of adults in small remote communities who require English and Mathematics upgrading to improve both their job skills and employment opportunities. Assessment of entering students relied on a paper-

based test mailed to prospective program participants. This method involved a significant lapse of time to complete enrolment of a learner and it did not always provide for direct contact with a prospective learner.

The target group for this project was primarily adults, either currently employed or not, whose opportunities were severely limited by their current need for literacy upgrading. Program participants were either clients of Ontario Works Programs or residents who sought out a program through the local Contact North/*Contact Nord* Distance Education & Training Access Centre. During the research project, assessments were conducted synchronously with the tester and participant at a distance using the assessment tool(s).

Assessments activities during the pilot and field testing phases of the project took place at Contact North/*Contact Nord*'s Distance Education & Training Access Centres in Ignace, Sandy Lake, Mattawa, Longlac, Armstrong, Nipigon, Hornepayne, South Porcupine, Savant Lake, Pickle Lake, Nakina, Collins, Moosonee and White River.

## THE PROJECT

### Building Basic Skills for Adults in Small Remote Communities

#### Project Phases

There were three phases to this project:

**1. Phase 1 Research and Development:** This included the identification, adaptation, and pilot testing of an Early Literacy Assessment instrument, which would be used to assess the entry level skills of the learners and provide diagnostic information for instruction. (Appendix A) A search was conducted for existing online literacy assessment instruments but none were found. A review of 'off-line' literacy assessments determined that most instruments were specific to particular programs. As the Balmoral Centre already had a literacy program in place, existing literacy assessment tests for English and Mathematics that matched the program curriculum were adapted for use with an audiographics tool (telewriter). This tool presents text (including graphics) on a computer screen in front of the learner. The assessor faces a similar screen in their home location. The learner is able to write on a tablet (similar in some respects to an 'Etch-a-Sketch') with a special pen which then displays the writing on the computer screen for the learner and assessor to see and read simultaneously. (See Figure 1)

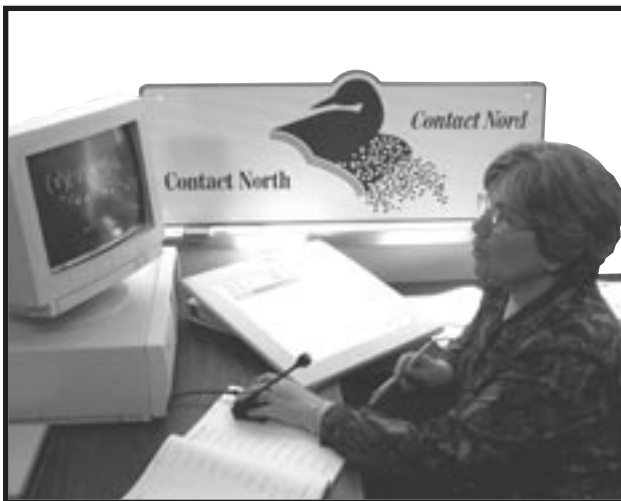


Figure 1 • Instructor using the telewriter and speaker phone audiographics tools.

The pilot enabled the instructional and assessment team to revise the test as needed. The assessment development team included a research consultant, literacy instructors and distance education specialists. The project team also included experienced adult educators who facilitated the participants through the actual test, using the audiographic tool and teleconferencing, and a marker who scored the tests. The literacy instructor from the Balmoral Centre was also involved with the selection and revisions to the tests, and tested and scored a small number of the students towards the end of the project.

**2. Phase 2 Testing and Instruction:** In this phase of the project, the learners (study group) and the control group members were identified. A pre-assessment of both the learners who were enrolled in the Adult Literacy program provided by the Balmoral Centre and a group of adults who volunteered to be in the control group was conducted. This group would participate in the assessments but not in the literacy program itself. This phase also included an instructional period in which the learners participated in the literacy program delivered via audiographic and teleconferencing technologies. The learners were located in one of the Contact North/*Contact Nord* Access Centres where they had access to teleconferencing and audiographic technologies, and technical support staff. While the instructional program continued over various periods of time, this phase of the project was limited to 6-8 weeks at which time the learners were re-assessed. A post-test or progress test was given to all participants to determine what gains were made with respect to literacy skills (Appendix B). Both the control group (no instruction) and the study group (instruction provided) were assessed using the same audiographic and teleconferencing tools used in the pre-test. The test itself however was different and was designed to measure the skills that students in the literacy program were

expected to have acquired as a result of the instruction. Scoring guides were developed for both the pre- and post-tests to facilitate marking (Appendix C).

- 3. Phase 3 Analysis and Reporting:** This last phase included the data collection, analysis and reporting stage. Interviews were conducted by the project researcher with a sample of the learners who participated in the study group, a sample of the adults from the control group who took the pre- and post-tests, and the testers, markers and instructor of the literacy program. A sample of the participants had also been given a survey orally immediately following their progress assessment to collect demographic information, to record their attitudes towards literacy and the assessment experience, and to gain some insight with respect to their home conditions as they relate to supports for their learning (Appendix D). The pre- and post-test data, along with student attendance records, were collected and collated at Contact North/*Contact Nord's* Northwest Regional Coordinating Centre in Thunder Bay, Ontario.

### Participants

In all, 75 adult learners participated in some aspect or stage of the project, a commendable feat in itself. A pilot program that involved 5 adult learners was run to provide preliminary feedback on the literacy assessment tool. The study involved 70 adult learners who participated in:

- (1) the Early Assessment test only (these participants did not respond to a call to complete the Progress test)
- (2) the Early and Progress Assessment tests (control group), and
- (3) the Early Assessment, instructional program, and the Progress Assessment (study group).

A sample of the participants participated in an

oral survey (Appendix D) to gather demographic information, information with respect to the supporting conditions for learning in their homes, and their perceptions of the literacy assessment process. Based on this survey conducted with 21 of the participants, it was found that the adults were primarily native, resident in or near small remote communities in Northern Ontario, and ranged in age from 15 to over 60. There were more females than males by a margin of almost 2 to 1. The majority (67%) of the adults spoke English as their mother tongue, and for 62% English was the language spoken at home.

Only one of the adults had graduated from High School. 52% of the study's participants had left school in grade 9 or lower, and 43% had left school after grade 10 or 11. While 57% were not currently employed, 24% were working fulltime. The others were either working occasionally (9%) or working part-time (9%).

A little more than half (52%) of those surveyed had someone at home who could read and write, and 57% indicated that there was someone at home who could do math. This might suggest that many do not have a support system, a mentor or tutor, living in their house who might be able to help them in their studies. When asked about their friends, 81% indicated that most or all of their friends could read, write and do math pretty well. Learning to read, write and do math was important to very important to 95% of those surveyed.

The demographic and contextual data gathered from the oral survey is reported in the following tables.

**Table 1: Gender**

Gender	Total	Percent
Males	8	38%
Females	13	62%

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**Table 2: Ages**

Age Range	Total	Percent
15-19	2	9%
20-25	2	9%
26-30	4	19%
31-35	4	19%
36-40	2	9%
41-50	5	24%
51-60	1	5%
60 +	1	5%

---

**Table 3: Mother Tongue**

Mother Tongue	Total	Percent
English	14	67%
French	4	19%
Ojibway	1	5%
Ojibway/ Cree	1	5%
Other	1	5%

---

**Table 4: Language Spoken at Home**

Language Spoken at Home	Total	Percent
English	13	62%
French and English	3	14%
English and Ojibway	2	9%
Ojibway/Cree	1	5%
French	1	5%
Ojibway	1	5%

---

**Table 5: Last Grade Attended When Left School**

Grade Completed	Total	Percent
3	1	5%
7	3	14%
8	2	9%
9	5	24%
10	6	29%
11	3	14%
College	1	5%

**Table 6: Occupational Status**

Occupational Status	Total	Percent
Working full-time	5	24%
Part-time	2	9%
Occasional	2	9%
Not working at present	12	57%

**Table 7: Availability of Support at Home from Someone who can Read, Write or do Math**

Is there anyone living in your home that can:	Yes	Percent	No	Percent
Read	11	52%	10	48%
Write	11	52%	10	48%
Do Math	12	57%	9	43%

**Table 8: The Extent to Which Friends can Read, Write, and do Math pretty well**

My Friends Read, Write & do Math Pretty Well	Total	Percent
All	8	38%
Most	9	43%
Some	4	19%
None	0	0%

**Table 9: The Degree to Which Learning to Read and Write is Important to Learner**

Learning to Read and Write is Important to Me	Total	Percent
Very important	16	76%
Important	4	19%
Somewhat important	1	5%
Not important	0	0%



**Table 10: The Degree to Which Learning to do Math is Important**

Learning to do Math is Important to Me	Total	Percent
Very important	14	67%
Important	6	29%
Somewhat important	1	5%
Not important	0	0%

---

### **The Literacy Assessment Instruments**

A Literacy and Numeracy Entry Level Assessment test was constructed by a team of literacy instructors, distance education and ESL specialists, and a researcher. The test was based upon existing tests used in the Balmoral Centre whose literacy programs meet all the criteria and guidelines set by the Ontario Literacy and Basic Skills Program Guidelines published by the Literacy and Basic Skills Section, Workplace Preparation Branch, Ministry of Training, Colleges and Universities.

By the professional judgment of this experienced team, the content of the test was deemed to be valid for the purpose given. Its purpose was to provide diagnostic information with regard to the entry level reading, writing and math skills of the adult learners. This test was converted into telewriter images and pages and then piloted with a group of 5 adult learners. Feedback from this pilot was used to make minor revisions, and the revised test was used as the entry level assessment.

A second test, a 'progress' test, was constructed to assess the level of literacy of the adult learners following 6-8 weeks of instruction. This period of time was decided upon to increase the likelihood of the adult learners being available for both the Entry and Progress Tests. The population in the communities involved is somewhat mobile, and longer periods of time were anticipated to decrease the likelihood of the original members still being available for the second assessment. The control group, who received no instruction, also received the same test. The term 'progress' was used to denote a 'further stage of competency' rather than to imply that full literacy was expected of the participants at the time of the second test. It should be noted that the time period for instruction (6-8 weeks, with a range of hours actually spent in an instructional environment by each student) was not estimated by the instructor and test developers to be adequate to raise the level of literacy in any substantive manner.

The test questions on this progress test were based on the skills that were covered in instruction. It should be noted that the entry test and the progress test were not constructed as equivalencies, which unfortunately made it impossible to analyze gain scores in student performance between the entry and progress tests. The progress test was constructed without the help of a researcher who might have ensured that for the purposes of this study, equivalent measures were created.

A scoring guide was constructed for each test to assign value to each question (Appendix C). The resulting profile for each learner provided information on strengths and weaknesses as well as an aggregate score.

In the initial research design for this study, it had been determined that the test administrator, test marker and the instructor would all be independent of one another to reduce any bias that might creep in and to ensure consistency. A scoring tool was constructed to provide guidance for marking each question. Towards the end of the study, due to resource limitations, the instructor was asked to administer and mark a few of the tests. This change in protocol gave rise to some unexpected findings with respect to the marking system. No matter how 'objective' a scoring system is deemed to be, there are likely to be some variations between markers in their interpretation of the questions and responses. Comments made by the two test markers when interviewed at the end of the study indicated that there were initially a few minor discrepancies in terms of the interpretations of how to score certain test questions. The two markers then held discussions to align their scoring of these questions. This experience demonstrated how much attention needs to be paid to ensure inter-rater reliability when marking tests of this nature.

The time that each learner took to complete each test was logged. Time limits were set and given to

the learners to ensure that schedules could be met with respect to the equipment. In reality the learners were given whatever time they needed to complete the tests. On average, the Entry Assessment required 111.6 minutes to complete, with a range between 30 to 180 minutes. The Progress Assessment averaged 96.7 minutes, with a range between 53 and 200 minutes.

**Audiographic Testing Format:** The Entry and Progress Assessments were administered individually to the adult literacy students with the use of a telewriter (audiographic tool) and speakerphone. With the test administrator at one location (in this case in Thunder Bay), the student sat in a room with a telewriter and speakerphone in their own community. An assistant, or monitor, was available at the students' location to help the student get set up and to deal with any technical problems should they arise. The test administrators were experienced adult educators.

The telewriter uses a computer monitor and a graphics writing tablet. This is sometimes referred to as an electronic blackboard. The student looks at the screen to read the text and writes on the tablet. The students' handwriting appears on the screen as the student writes or prints. The test administrator can view the students' writing on their computer monitor and is in voice contact with the student over the speakerphone. As a page of the test is completed, the test administrator saves the page and brings up the next. These pages are in turn printed and given to the test scorers to mark.

While the telewriter requires some degree of eye-hand coordination, and an explanation for the student of the process, the system worked extremely well during the testing phases of the project, with few if any students having any difficulties.

## PROJECT FINDINGS

### Building Basic Skills for Adults in Small Remote Communities

#### **Project Findings, Part 1: Perceptions of the Adult Learners of the Assessment Process**

Telephone interviews were conducted by the researcher with a sample of the participating adults, both those in the study group and those in the control group, to gather their perceptions of the assessment process. There were 5 adult learners from the study group and 2 from the control group interviewed. These adults were selected largely based on their availability and willingness to participate. The interviews were held after the students had completed both tests. The length of the interviews ranged from 20-45 minutes. The interviewer/ researcher is an experienced adult educator and a seasoned interviewer.

All of the adults expressed support for the use of the telewriter and found that they could become quite adept with the tool after only a few minutes of practise. Some of the adults had had prior experience with this tool, but most had not. Most of those who were using the telewriter for the first time suggested that it was easy to learn, that they did not need help and that the equipment worked as expected. One of the interviewees said that it takes a little getting used to watching the computer screen while writing but that it does work.

Several of the adults commented that they preferred the telewriter to paper and pencil tests. One reason given for this was that the adults were in voice contact with the test administrator who could ensure that they were following the correct procedures and provide encouragement if needed. One of the interviewees explained that this was something new, it was fun and that she could get help right away. Another described it as fun and easy. And yet another commented that she "preferred this method over a paper test because it moved along easily" and that it was more responsive.

Several of those interviewed commented that they expected that they would perform as well on

the telewriter as with a paper and pencil test. These students were motivated to participate and to upgrade their literacy skills as much as they could. The literacy tests provided them with an opportunity to see what they could do and how well they had learned.

When asked what might be done to improve the testing experience, the only comments that were provided was to suggest that the "page be made bigger", that more space be provided to work out the (math) problems and do calculations, and that the math test could be made shorter with fewer questions.

Overall the adult learners were pleased with this testing experience and found the telewriter valuable. It was easy to use and it provided opportunities for the learners to receive feedback during the process.

#### **The Findings, Part 2: Perceptions of the Assessment Team and Instructor**

Interviews were conducted with the literacy instructor (who administered and marked several of the participants' tests as well as provided the instructional program to the study group), the test administrators (who worked the audiographic equipment from Thunder Bay) and the test markers. Several members of this group were also involved in the development of the literacy tests. The following comments are based on these in-depth interviews.

**The Use of Audiographics for Testing:** All of those involved with the use of the audiographic equipment rated the experience for the participants, and themselves, very highly. In short, it worked. There were occasional equipment failures but a backup system was almost always in place. Technical help was available on site. The test administrators had been given training on the equipment and found that they became quite comfortable with its use after only a few experiences. The tests provided appropriate information

## PROJECT FINDINGS

### Building Basic Skills for Adults in Small Remote Communities

with respect to the entry level and progress levels of the participants. While the page format for some of the questions on the telewriter was deemed to need improvement (not enough space for the participants to work out the problems and show their work), overall the test format, length and questions were thought to be quite acceptable. A few minor changes to the test questions were suggested. The testers, marker and instructor were well organized, and the program well thought through.

**Advantages:** In the past students were given a paper version of a literacy test, which they wrote under the eye of a volunteer supervisor. The test was then mailed to the instructor or marker, and the results kept by the literacy instructor. Little immediate feedback was provided to the student, and it often took several weeks for the process to be completed. With the use of the telewriter and speakerphone, the test administrator was able to establish rapport with the student and provide assistance along the way. From the feedback from the participants, it is evident that this rapport is desirable. This rapport can also lead to greater retention of students in the program when it is established early on.

By being able to talk with the participants while they were completing the test and see directly what they were doing on the 'test paper,' the test administrator could glean valuable information. The immediacy of this testing experience would also permit quicker entry of the student into a literacy program. The experience can promote both the self-esteem and self-concept of the students.

The testing experience – literacy assessment conducted via distance education technology -- for both the students and the testers was perceived, almost to a person, as positive. This initiative demonstrates how literacy assessments and instructional programs, delivered via distance technologies, can be conducted with positive results. There appears to be great value in the use

of audiographic and teleconferencing technologies for literacy assessment and instruction.



Figure II • Literacy students engaged in a teleconference with the aid of a telewriter.

**Areas to Improve:** During interviews with the researcher, the following suggestions for improvements or comments were made by the test administrators, markers and the instructor.

- It was frequently mentioned that the format of a few of the pages on the telewriter should be modified to provide the students with more space to write and work through numerical calculations.
- It was suggested that the same person should administer the test, mark it and provide the literacy instruction as this would give the instructor more direct and specific information about each student. It would be conceivable that the student could receive almost immediate feedback, following the test, as to his or her performance. The instructor would then also have additional useful prior knowledge of the student to assist in preparing a learning plan. The involvement of the instructor in the initial assessment also allows for a rapport to be established early in the process between student and instructor, and may lead to greater retention. The use of the synchro-

nous technology (the audiographic equipment) provides opportunity for this relationship and instructional pattern to be developed. There may of course be logistical issues (scheduling of time and access to equipment) that would need to be resolved.

**Key Success Factors:** The following comments were provided by the instructor, test administrators and markers when asked what the key success factors were:

- The learners were committed and motivated.
- All the staff involved were well organized and able to resolve problems when they arose.
- The audiographic tools did the job. This technology works well for this purpose.
- Training was provided to staff that were not familiar with the audiographic equipment.

#### **The Findings, Part 3: Assessment of Student Learning**

An assessment of student performance gains requires the use of pre- and post-tests that can be equated to one another so that the intervention (the instructional experience) can demonstrate a direct correlation. Unfortunately the pre-test and post-test were not constructed to measure exactly the same skills. As explained earlier in this report, the progress test was developed by the instructor, the marker and distance education specialist without the benefit of a researcher who might have emphasized the need for test equivalencies in this particular circumstance. The post-test included additional skills that reflected the content of the instruction; this was quite appropriate for formative purposes, but not what was needed to demonstrate accurately the gains that students might have made. The student scores from the entry and progress level tests are not included in this report as the data has little meaning for comparisons and might be misconstrued. A confounding circumstance also exists. Although the period of time between the entry and progress test was targeted at between 6-8

weeks, the actual time spent in instruction by each student varies considerably. It would be difficult if not impossible to analyse student gain scores with such variation in the instructional intervention. As such there can be no reporting of the assessment of student gains in this study. While this is somewhat of a loss, the greater experience of this study quite clearly demonstrates that the use of audiographic technologies can and does enhance the assessment process, and can indeed be managed well.

## CONCLUSION

### Building Basic Skills for Adults in Small Remote Communities

It has been demonstrated, within the limits of this study, that online literacy assessments can be conducted, and conducted well, with the use of audiographic and teleconferencing tools to learners in remote regions. The use of these technologies provides great value to the assessment and instructional process, both for students and literacy instructors. There are great benefits to learners and instructors in terms of timeliness of feedback, development of rapport and potential motivational increases. The participants in this study were highly motivated to complete the tests, to do as well as they could, and to learn. While some of this may be attributed to a "Hawthorne Effect" (the attention paid to individuals who are part of a study by itself can increase performance), it is just as likely that this type of assessment and learning environment generates motivating conditions regardless of whether they are part of a study or not. The interactivity and personal attention that this equipment enables was perceived by the learners and adult educators to be a tremendous enhancement to the learning and assessment experience. The use of the audiographic equipment was found to be motivating to the learners and easy to use. This technology (the telewriter and teleconferencing) is in a mature stage, that is, it has proven itself to be reasonably reliable, easy to operate and somewhat versatile for instructing and communicating over distances.

The assessment instruments that were developed for the purposes of this project provided the information that was required by the instructor for an initial diagnostic literacy assessment and for a progress assessment. These assessment instruments were adapted from existing bonafide assessments and could be adapted again. While minor adjustments would be advised with respect to the page formatting for the telewriter, the tests worked overall.

For the purpose of this study, different individuals were given the tasks of test administration, marking and instruction to reduce any bias or inconsisten-

cies that might creep in and contaminate the data. It would appear advisable for instructional purposes alone to engage the instructor in the initial literacy assessment administration, marking and instruction. This would facilitate the development of rapport between learner and instructor, enable feedback to be given to the learner in a timely fashion, and provide the instructor with greater insight to the learner before the program begins.

This project demonstrates that it is viable to provide literacy assessment to learners in remote areas via audiographic and teleconferencing technologies, and that these technologies contribute in significant ways to the process. An assessment instrument has been constructed which is transferable to other similar contexts and which has proven itself to be authentic and usable. While minor adjustments may need to be made to the telewriter format (the amount of text that is provided on each page, and the space that is then available for the student to work within), there is evidence of the contributions that audiographic and teleconferencing technology can make to literacy assessment conducted over distances. The learners' perceptions of the process were very positive, and this alone can contribute to the enhancement of literacy education for those most in need in remote areas.

Findings of the Building Basic Skills Research Project will be presented at the International Council for Open and Distance Learning and the Canadian Association for Distance Education's North American Regional Conference, May 26 -29, 2002

- Broad distribution of the findings will also be made to provincial and regional literacy associations.

Articles focused on the project and its findings will be submitted to newsletters, and periodical publications of distance learning and literacy organizations.



## CONCLUSION

### Building Basic Skills for Adults in Small Remote Communities

This Final Report document and the Executive Summary contained herein will be available from the Office of Learning Technologies, Human Resources Development Canada at [www.olt-bta.hrdc-drhc.gc.ca](http://www.olt-bta.hrdc-drhc.gc.ca) or requested from Contact North/*Contact Nord* at [www.cnorth.edu.on.ca](http://www.cnorth.edu.on.ca)

## APPENDICES

### Building Basic Skills for Adults in Small Remote Communities

- APPENDIX A**    Entry Assessment (English, Mathematics)
- APPENDIX B**    Progress Assessment (English, Mathematics)
- APPENDIX C**    Scoring Guides (Entry English, Entry Math, Progress English, Progress Math – Marks Records)
- APPENDIX D**    Oral Survey Form

THIS PAGE SHOWS HOW THE RESPECTIVE PAGES APPEARED ON PARTICIPANTS' TELEWRITER MONITOR SCREEN.

*Assessment Research: Project 99561* *Page 31*

**English Assessment**

**Name** \_\_\_\_\_

**Date** \_\_\_\_\_

**Site** \_\_\_\_\_

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**1. Fill out the following information.**

**Address:** \_\_\_\_\_

**City:** \_\_\_\_\_

**Prov:** \_\_\_\_\_ **Postal Code:** \_\_\_\_\_

**Telephone Number:** \_\_\_\_\_

**Hobbies or Interests:** \_\_\_\_\_

THIS PAGE SHOWS HOW THE RESPECTIVE PAGES APPEARED ON PARTICIPANTS' TELEWRITER MONITOR SCREEN.

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**Alphabetical Skills**

**2. Put these letters in alphabetical order.**  
s    w    c    p    d    q    j    m  
\_\_\_\_

**3. Underline the vowels in each word.**  
apple            join            nut            candy

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---

**Spelling**

**Circle the word that is spelled correctly from each pair of words.**

want, whant	babys, babies
stopped, stoped	shcool, school
freind, friend	February, Febuary

**5. Add “s” or “es” to the following words.**

fox _____	key _____
carry _____	echo _____

THIS PAGE SHOWS HOW THE RESPECTIVE PAGES APPEARED ON PARTICIPANTS' TELEWRITER MONITOR SCREEN.

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**Spelling**

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**6. Add “ed” to the following words.**

plan _____	marry _____
jump _____	hop _____

**7. Add “ing” to the following words.**

boil _____	hope _____
wrap _____	carry _____

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---

**Dictionary Skills**

---

**8. Put the following six words into alphabetical order.**

ship speak sentence stood sand stand

1. _____	4. _____
2. _____	5. _____
3. _____	6. _____

**9. Using a dictionary, find the meaning of the word *sturdy*.**

\_\_\_\_\_

\_\_\_\_\_

THIS PAGE SHOWS HOW THE RESPECTIVE PAGES APPEARED ON PARTICIPANTS' TELEWRITER MONITOR SCREEN.

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## **Punctuation and Capitalization**

---

Write the correct punctuation and capitals where needed in the sentences below.

10. *watch out*

11. *dr black will not work on christmas day  
which is on Tuesday december 25th*

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12. *mark ate 6 big macs 2 fries and  
drank 3 soft drinks at mcdonalds*

13. *which is larger the pacific ocean  
or the atlantic ocean*

THIS PAGE SHOWS HOW THE RESPECTIVE PAGES APPEARED ON PARTICIPANTS' TELEWRITER MONITOR SCREEN.

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**Grammar**

14. Identify each word as a noun, verb, adjective, or an adverb by circling the correct answer. The first one is done for you as an example.

<i>shipped</i>	noun	verb	adjective	adverb
<i>ran</i>	noun	verb	adjective	adverb
<i>Pacific Ocean</i>	noun	verb	adjective	adverb
<i>restaurant</i>	noun	verb	adjective	adverb
<i>sleepy</i>	noun	verb	adjective	adverb
<i>quickly</i>	noun	verb	adjective	adverb
<i>think</i>	noun	verb	adjective	adverb

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15. In each sentence underline the **subject(s)** and circle the **predicate(s)** (verb(s)).

*He enjoys hockey on Saturday night.*

*Jane washed and dried the dishes.*

*Troy and Sue swim for a hobby.*



THIS PAGE SHOWS HOW THE RESPECTIVE PAGES APPEARED ON PARTICIPANTS' TELEWRITER MONITOR SCREEN.

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**16. Identify the verb as past, present or future.  
Circle the correct answer.**

*Bill caught six fish on  
Thursday.*

past present future

*The Smith family is going to  
Mexico for a holiday on  
Friday.*

past present future

*The winds blow strongly  
On the coast.*

past present future

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**17. Indicate if the sentence is a complete  
thought. (Circle yes or no)**

*Mike is going to.*

yes no

*Breaking the window and falling  
down the stairs.*

yes no

*The amazing stunt scared the crowd.*

yes no

*A car was stolen from.*

yes no

*Harry caught 6 trout and won the prize.*

yes no

*Tyaa wants to go shopping and the light  
bulb broke and the fish died.*

yes no

THIS PAGE SHOWS HOW THE RESPECTIVE PAGES APPEARED ON PARTICIPANTS' TELEWRITER MONITOR SCREEN.

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## 18. Reading Comprehension

- Read the story and answer the questions enclosed.
- Write your answers on the paper provided.
- Please see the printed pages in your package.
- Write your answers in full sentence form.

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## 19. Writing

Your last assignment is to write a paragraph about **any subject** you wish.

- Remember to use complete sentences, punctuation and capitals.
- Use the paper provided in your package.
- Examples of topics may be:
  - \* Why I am returning to school
  - \* An awful experience I had
  - \* If I won a million dollars
  - \* A trip I took



## READING COMPREHENSION

### “White Knuckle” Time on the Great Lakes

Water ebbs and water flows on the Great Lakes, and the large ocean going ships can only obey.

This year the water level of the lakes is plunging. Two things happen to the ships that carry massive amounts of grain, coal and iron ore from the upper Midwest to the open sea and back: their cargo holds are emptier and their pilots’ knuckles are whiter.

Shallow water, where the bottom may have a lot of jagged boulders, keeps the pilots on their toes. The seafaring vessels (known as salties, none more than 225 metres long) are piloted through channels, straits and turns that must be perfect. The chance of an error is a matter of centimetres between the boat’s bottom and the rocky lake bottom, and a matter of a few metres between the hull and the rocky shore.

Three mild winters have deprived the lakes of ice cover that slows the evaporation of the water. This has made the pilot’s job trickier. Also, lack of snow has deprived the lakes of melting snow to refill them.

On the St. Mary’s River, which connects Lakes Superior and Huron, water is as much as 46 centimetres below recent levels. This area is the system’s most dangerous stretch. One captain said, “I was told I wouldn’t have any trouble finding the channels in the river this time around because it’s the only water that’s there”.

No ship is known to have hit bottom this year as a result of low water, although the U.S. Coast Guard has yet to determine the cause of a couple of groundings. Stranded ships can cost carriers millions of dollars in repairs and lost time. But shippers and carriers must compensate by loading less cargo. In some cases, they load up to 15 per cent less so that the boats ride higher in the water. This way the boat will clear the shallowest points along the roughly 3,540-kilometre route from Duluth and out the St. Lawrence Seaway to the Atlantic Ocean.

Cargo is money and all the companies on the Great Lakes are very aware of the low water. It means less revenue.

**FILL IN THE BLANKS:**



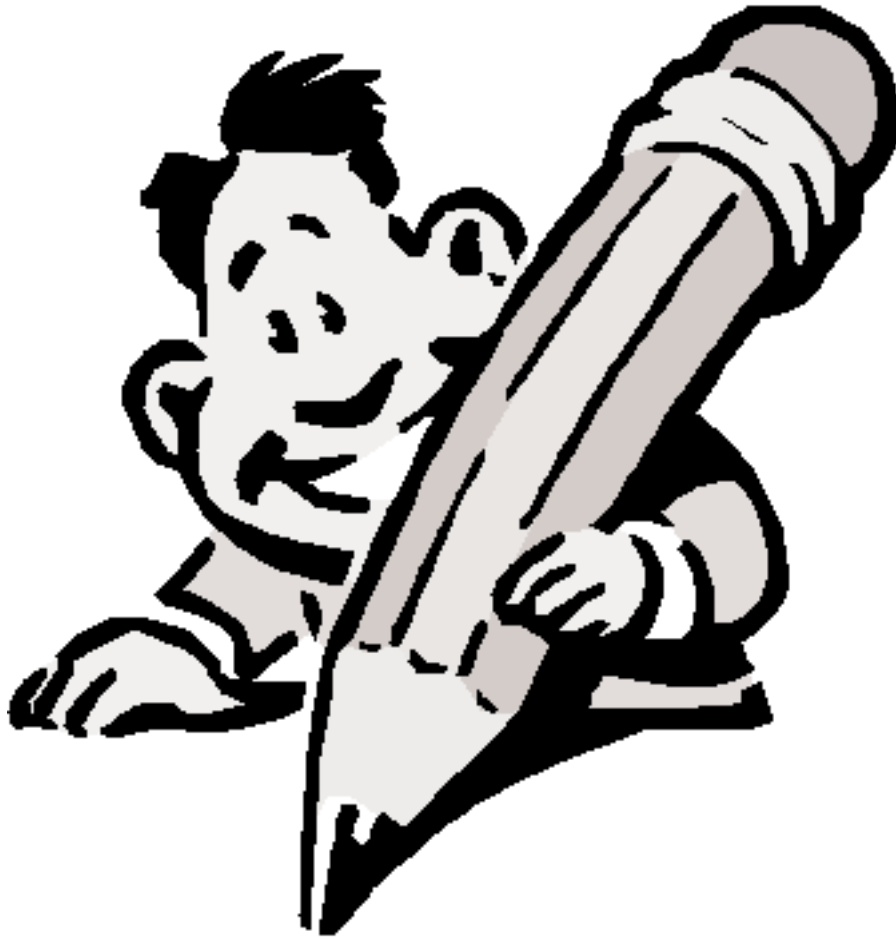
1. “Salties” are \_\_\_\_\_
2. The \_\_\_\_\_ connects Lake Superior and Lake Huron.
3. Stranded ships can cost \_\_\_\_\_  
\_\_\_\_\_ in repairs and \_\_\_\_\_
4. \_\_\_\_\_ ships have hit the bottom this year as a result of \_\_\_\_\_

**ANSWER IN FULL SENTENCES:**

1. Why are the lakes’ water levels low? \_\_\_\_\_
2. What items can be placed in the cargo hold? \_\_\_\_\_
3. How long is the route from Duluth to the Atlantic Ocean? \_\_\_\_\_  
\_\_\_\_\_
4. Why do the companies not want less cargo on their ships? \_\_\_\_\_
5. How much less must the ships carry when the lakes are low? \_\_\_\_\_  
\_\_\_\_\_

**USING THE STORY AS A GUIDE, WHAT DO THESE WORDS OR PHRASES MEAN?**

1. water ebbs and water flows \_\_\_\_\_
2. the level of the lakes is plunging \_\_\_\_\_
3. stranded ships \_\_\_\_\_
4. revenue \_\_\_\_\_
5. grounding \_\_\_\_\_



# Writing

- Your last assignment is to write a paragraph about **any subject** you wish.
- Remember to use complete sentences, punctuation and capitals.
- Use the papers provided in this package.

- Examples of topics may be:
  - Why you are returning to school
  - An awful experience
  - If you won a million dollars
  - A trip

THIS PAGE SHOWS HOW THE RESPECTIVE PAGES APPEARED ON PARTICIPANTS' TELEWRITER MONITOR SCREEN.

*Assessment Research: Project 99561* *Page 1*

**ENTRY Mathematics assessment**

Name \_\_\_\_\_

Date \_\_\_\_\_

Site \_\_\_\_\_

**SHOW ALL WORK YOU DO!**

*Page 2*

1. Add the following:

a)  $6 + 2 =$                       b)  $7 + 4 + 5 + 9 =$

c) 
$$\begin{array}{r} 25 \\ 35 \\ +7 \\ \hline \end{array}$$

d) 
$$\begin{array}{r} 1,002 \\ 957 \\ 800 \\ +101 \\ \hline \end{array}$$

THIS PAGE SHOWS HOW THE RESPECTIVE PAGES APPEARED ON PARTICIPANTS' TELEWRITER MONITOR SCREEN.

*Page 3*

2. Subtract the following:

a) 
$$\begin{array}{r} 9 \\ -6 \\ \hline \end{array}$$

b)  $23 - 8 =$

c) 
$$\begin{array}{r} 1,000 \\ - 899 \\ \hline \end{array}$$

d) 
$$\begin{array}{r} 23,956 \\ \underline{3896} \end{array}$$

*Page 4*

3. Multiply the following:

a)  $5 \times 5 =$

b)  $9 \times 7 =$

c) 
$$\begin{array}{r} 252 \\ \times 7 \\ \hline \end{array}$$

d) 
$$\begin{array}{r} 232 \\ \times 142 \\ \hline \end{array}$$

THIS PAGE SHOWS HOW THE RESPECTIVE PAGES APPEARED ON PARTICIPANTS' TELEWRITER MONITOR SCREEN.

*Page 5*

4. Divide the following:


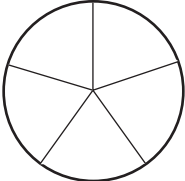
a)  $24 \div 6 =$                       b)  $1680 \div 9 =$

c)  $3 \overline{)143}$                               d)  $40 \overline{)21,000}$

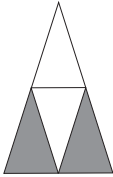
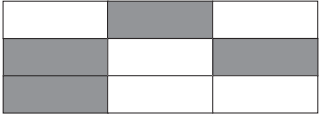
*Page 6*

**FRACTIONS**

5. Mark with X's the portions that show the fractions.

a)  $\frac{1}{4}$                        b)  $\frac{3}{5}$  

Write a fraction that tells what part of the picture is shaded, reduce if necessary.

c)                       d) 



THIS PAGE SHOWS HOW THE RESPECTIVE PAGES APPEARED ON PARTICIPANTS' TELEWRITER MONITOR SCREEN.

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When adding or subtracting fractions, the denominators (bottom numbers) **MUST** be the same.

Example:  $\frac{1}{4} + \frac{1}{3} = \frac{1 \times 3}{4 \times 3} + \frac{1 \times 4}{3 \times 4} = \frac{3}{12} + \frac{4}{12} = \frac{7}{12}$

---

6. Add the following, reduce if necessary.

a)  $\frac{1}{5} + \frac{2}{5} =$       b)  $5\frac{1}{8}$       c)  $\frac{7}{8}$

$+ 3\frac{3}{8}$

$+ \frac{3}{5}$

*Page 8*

Subtract the following and reduce, if necessary.  
 Reminder: At times you may have to borrow, **review this example with your tester**.

Example:  $5\frac{1}{8} - 2\frac{7}{8} = 4\frac{1+8}{8} - 2\frac{7}{8} = 4\frac{9}{8} - 2\frac{7}{8} = 2\frac{2}{8} = 2\frac{1}{4}$

---

7. a)  $\frac{2}{3} - \frac{1}{3} =$       b)  $9\frac{1}{2}$

$- 4\frac{3}{8}$

8

THIS PAGE SHOWS HOW THE RESPECTIVE PAGES APPEARED ON PARTICIPANTS' TELEWRITER MONITOR SCREEN.

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Example:  $5 \frac{1}{8} = 4 \frac{1}{8} + \frac{8}{8} = 4 \frac{9}{8}$   
 $- 2 \frac{7}{8} = -2 \frac{7}{8} = -2 \frac{7}{8}$   
 $= 2 \frac{2}{8} = 2 \frac{1}{4}$

---

7. c)  $6 \frac{1}{2}$   
 $- 2 \frac{1}{2}$   
      

d)  $12 \frac{1}{3}$   
 $- 3 \frac{2}{3}$   
      

*Page 10*

Multiply straight across, reduce or cancel where needed.

Example 1:  $\frac{2}{3} \times \frac{1}{5} = \frac{2}{15}$

---

8. a)  $\frac{3}{5} \times \frac{1}{4} =$       b)  $\frac{7}{12} \times \frac{3}{4} =$       c)  $9 \times \frac{3}{18} =$

THIS PAGE SHOWS HOW THE RESPECTIVE PAGES APPEARED ON PARTICIPANTS' TELEWRITER MONITOR SCREEN.

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Example:  $2\frac{1}{3} \times 6\frac{3}{5} = \frac{7}{3} \times \frac{33}{5} = \frac{7}{\cancel{3}} \times \frac{\cancel{3}3}{5} = \frac{77}{5} = 15\frac{2}{5}$

---

8. d)  $14\frac{2}{3} \times 3\frac{3}{11} =$

e)  $\frac{1}{3} \times \frac{3}{7} \times \frac{14}{15} =$

*Page 12*

To divide fractions, invert the second fraction, then multiply.

Example:  $\frac{1}{4} \div \frac{1}{2} = \frac{1}{4} \times \frac{2}{1} = \frac{2}{4} = \frac{1}{2}$

---

9. a)  $\frac{3}{4} \div \frac{3}{7} =$

b)  $2\frac{1}{4} \div \frac{2}{3} =$

c)  $\frac{3}{4} \div 9 =$

THIS PAGE SHOWS HOW THE RESPECTIVE PAGES APPEARED ON PARTICIPANTS' TELEWRITER MONITOR SCREEN.

*Page 13*

10. Add the following decimals.

a) 
$$\begin{array}{r} 1.62 \\ +1.5 \\ \hline \end{array}$$

b)  $8.65 + .01 + .2 =$

11. Subtract the following decimals.

a) 
$$\begin{array}{r} .96 \\ -2.3 \\ \hline \end{array}$$

b)  $100 - 9.73 =$

*Page 14*

12. Multiply the following decimals.

a) 
$$\begin{array}{r} 12.3 \\ \times 4 \\ \hline \end{array}$$

b) 
$$\begin{array}{r} 3.45 \\ \times 0.5 \\ \hline \end{array}$$

13. Divide the following decimals.

a)  $7 \overline{)33.6}$

b)  $.6 \overline{)2.76}$

THIS PAGE SHOWS HOW THE RESPECTIVE PAGES APPEARED ON PARTICIPANTS' TELEWRITER MONITOR SCREEN.

*Page 15*

14. Change these decimals to percents (%).

a)  $.45 =$

b)  $12.3 =$

15. Change these fractions to percents (%).

a)  $\frac{27}{100} =$

b)  $\frac{17}{25} =$

16. Change these percents (%) to decimals.

a)  $4.2\% =$

b)  $720\% =$

*Page 16*

17. Solve these problems:

a) There are 28 students in a school program. Seven students take Mathematics. What fraction of the students take Mathematics?

THIS PAGE SHOWS HOW THE RESPECTIVE PAGES APPEARED ON PARTICIPANTS' TELEWRITER MONITOR SCREEN.

*Page 17*

b) Joe spent the weekend painting his house. Friday he worked 2.5 hours. Saturday he worked 6.25 hours. Sunday he worked 3.75 hours. How many hours did he spend painting his house?

*Page 18*

c) Joe paid \$143.00 for 13 cans of paint. What was the price of one can of paint?

THIS PAGE SHOWS HOW THE RESPECTIVE PAGES APPEARED ON PARTICIPANTS' TELEWRITER MONITOR SCREEN.

*Page 19*

d) Pat bought 6 cases of pop. There are 24 cans in each case. How many cans are there?

*Page 20*

e) A shirt is on sale for 20% off. The regular price is \$18.50. What is the sale price? If the provincial sales tax is 8% and the GST is 7%, what is the total cost of the shirt?

THIS PAGE SHOWS HOW THE RESPECTIVE PAGES APPEARED ON PARTICIPANTS' TELEWRITER MONITOR SCREEN.

*Page 21*

f) Ed wants to build a fence around a lot that is 42 meters long and 12 meters wide. How much fencing will be needed?

*Page 22*

g) Loren wants to put carpet in her livingroom. The room measures 14m by 12m. How much carpet is needed?



THIS PAGE SHOWS HOW THE RESPECTIVE PAGES APPEARED ON PARTICIPANTS' TELEWRITER MONITOR SCREEN.

*Page 23*

**On this Stub, complete the following 4 boxes:**

<u>TOTAL HOURS</u>	<u>TOTAL DEDUCTIONS</u>
<u>GROSS PAY</u>	<u>NET PAY</u>

Hours/Day 7	Days/Week 5	TOTAL HOURS	Rate/Hour \$6.35	GROSS PAY
Income Tax \$38.42	UI \$19.19	C.P.P. \$7.32	OTHER \$.89	TOTAL DEDUCTIONS
				NET PAY

THIS PAGE SHOWS HOW THE RESPECTIVE PAGES APPEARED ON PARTICIPANTS' TELEWRITER MONITOR SCREEN.

*Assessment Research: Project 99561*

*Page 31*

## **English Assessment: Progress**

**Name**

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**Date**

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**Site**

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*Page 32*

### **1. Underline the correct word in the brackets.**

*You and Joan ( is , are ) to call later.*

*Coffee and a doughnut ( cost , costs ) three dollars.*

*The ( boys , boy ) are meeting us at noon.*

*The family ( has , have ) lots of old cars.*

THIS PAGE SHOWS HOW THE RESPECTIVE PAGES APPEARED ON PARTICIPANTS' TELEWRITER MONITOR SCREEN.

Page 33

**2. Identify each of the following sentences as: simple, compound, incomplete or run-on.**

*The plane landed and everybody got off and they got into their trucks.* \_\_\_\_\_

*Ate her lunch.* \_\_\_\_\_

*You watched T.V., and I went to the movies.* \_\_\_\_\_

*Be careful of the ice.* \_\_\_\_\_

Page 34

**3. Underline the subject(s) once. Underline the predicate(s) twice.**

*Susan loves the cold weather and hates wet days.*

*Nakina and Geraldton are north of Lake Superior.*

THIS PAGE SHOWS HOW THE RESPECTIVE PAGES APPEARED ON PARTICIPANTS' TELEWRITER MONITOR SCREEN.

Page 35

**4. Combine each set of sentences into one:**

*Perogies are sold here. Persians are sold here.  
Sally Anns are sold here.*

*You bought a new snowmobile. I bought an old  
snowmobile.*

Page 36

**5. Write the correct punctuation and capitals  
where needed in the sentences below.**

*do you remember where mrs cameron lives*

*john and I were born in thunder bay Ontario*

*the grayhound bus arrives at noon every mon,  
wed, and fri in jan , feb , and march*

*my address is 500 main st pickle lake*

THIS PAGE SHOWS HOW THE RESPECTIVE PAGES APPEARED ON PARTICIPANTS' TELEWRITER MONITOR SCREEN.

Page 37

**6. Place commas where needed.***School ends on Thurs. June 29 2000.**Bill visited Whitesand Mattawa and Dokis in August.**Mr. Jones the school principal said to the students "No smoking on school property".**Issac Wilma and Betty stayed late but the other students left on time.*

Page 38

**7. Write a contraction for each set of words.**

I am \_\_\_\_\_ could have \_\_\_\_\_

is not \_\_\_\_\_ have not \_\_\_\_\_

she will \_\_\_\_\_ he would \_\_\_\_\_

you are \_\_\_\_\_ they are \_\_\_\_\_

we should not \_\_\_\_\_

did not \_\_\_\_\_

THIS PAGE SHOWS HOW THE RESPECTIVE PAGES APPEARED ON PARTICIPANTS' TELEWRITER MONITOR SCREEN.

Page 39

**8. Underline the correct form of the noun or pronoun.**

*“The red car is ( my , mine )”, he said to her.*

*The teacher asked Jane which book was ( her , hers ).*

*Please carry the ( teachers , teacher’s ) books to the office.*

*All the ( students’ , student’s ) votes were counted.*

Page 40

**9. Write the plural form of each singular noun.**

tomato \_\_\_\_\_

box \_\_\_\_\_

penny \_\_\_\_\_

knife \_\_\_\_\_

video \_\_\_\_\_

deer \_\_\_\_\_

THIS PAGE SHOWS HOW THE RESPECTIVE PAGES APPEARED ON PARTICIPANTS' TELEWRITER MONITOR SCREEN.

Page 41

**10. Replace each noun or nouns with a pronoun.**

*Susan borrowed a book from Peter, but (Susan) \_\_\_\_\_ must give (the book) \_\_\_\_\_ back to (Peter) \_\_\_\_\_ tomorrow.*

*(Jane and Bob) \_\_\_\_\_ will be visiting Thunder Bay, but I am not sure when to expect (Jane and Bob) \_\_\_\_\_.*

Page 42

**Replace each noun or nouns with a pronoun.**

*John's friends are visiting (John) \_\_\_\_\_.*

*(Father) \_\_\_\_\_ asked (my brother and me) \_\_\_\_\_ about the movie.*

THIS PAGE SHOWS HOW THE RESPECTIVE PAGES APPEARED ON PARTICIPANTS' TELEWRITER MONITOR SCREEN.

Page 43

**11. Circle all collective nouns.**

jury          juror          class          family

**12. Circle all abstract nouns.**

secret          food          kindness          idea

Page 34

**13. Capitalize all proper nouns and underline all common nouns.**

*Of all the banks, the bank of commerce is my favorite.*

*At the wedding, i met many uncles, but uncle wayne was my favorite.*



THIS PAGE SHOWS HOW THE RESPECTIVE PAGES APPEARED ON PARTICIPANTS' TELEWRITER MONITOR SCREEN.

*Page 45*

**14. Answer in full sentences.**

*What three things do you do on the weekend ?*

*What is your favorite sport and why?*



## READING COMPREHENSION

# The Best Games Ever?

The Sydney games focused on women, aboriginal peoples and the inclusion of all competitors in the various events and celebrations. Female athletes from Australia were honoured in the torch run that crossed the country and eventually brought the Olympic flame into the stadium during the opening ceremonies. Opening ceremony celebrations combined contemporary music, aboriginal dance and technological showpieces to thrill the crowd and entertain the athletes from around the world.

Controversy hung over the games due to reports that the city government of Sydney had arranged to have the poor and homeless removed from the city centre and relocated for the period of the Olympics. The media reacted to the rumours that the problems in the society were being hidden from tourists arriving to watch the games. Sydney has been the center of controversy in other areas over the years with the building of the famous opera house and the bridge going well over projected budget.

The Olympic Games in Sydney were proclaimed as the best ever by the International Olympic Committee president at the closing ceremonies.

They were the games of the XXVII Olympiad in the modern era. Athens, Greece is considered the birthplace of the modern Olympic games and the 2004 games will be held there. Representatives of both Australia and Greece were on hand at the closing ceremonies to take part in the passing on of the Olympic flag to the next host country.

**A. ANSWER IN FULL SENTENCES:**



1. What did the opening ceremonies focus on?

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2. Why was there controversy at the games?

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3. What are your feelings concerning the removal of the poor and homeless for the Olympic games?  
Do you agree or disagree with the decision? Why?

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THIS PAGE SHOWS HOW THE RESPECTIVE PAGES APPEARED ON PARTICIPANTS' TELEWRITER MONITOR SCREEN.

*Research 2000: Project 99561*

*Page 1*

**Progress Mathematics Assessment**

Name \_\_\_\_\_

Date \_\_\_\_\_

Site \_\_\_\_\_

**SHOW ALL WORK YOU DO!**

*Page 2*

Solve each problem.

Show all your work!

1. Write the number one million, four hundred thousand, six hundred, twenty-one in figures.

2. What is 158,641 rounded to the nearest thousand?

THIS PAGE SHOWS HOW THE RESPECTIVE PAGES APPEARED ON PARTICIPANTS' TELEWRITER MONITOR SCREEN.

*Page 3*

3.  $265 + 13,388 + 5,219 =$

4. 
$$\begin{array}{r} 192 \\ 12,400 \\ +3,185 \\ \hline \end{array}$$

5. 
$$\begin{array}{r} 4,605 \\ -1,986 \\ \hline \end{array}$$

*Page 4*

6. 
$$\begin{array}{r} 46,233 \\ -7,585 \\ \hline \end{array}$$

7. 
$$\begin{array}{r} 2,267 \\ \times 48 \\ \hline \end{array}$$

THIS PAGE SHOWS HOW THE RESPECTIVE PAGES APPEARED ON PARTICIPANTS' TELEWRITER MONITOR SCREEN.

*Page 5*

8.  $299 - 7 =$

9.  $82 \overline{)5,543}$

*Page 6*

1. Add the following:

a)  $6 + 2 =$

b)  $7 + 4 + 5 + 9 =$

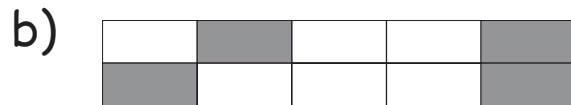
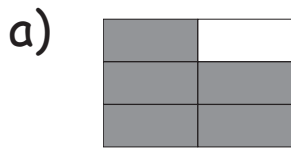
c) 
$$\begin{array}{r} 25 \\ 35 \\ +7 \\ \hline \end{array}$$

d) 
$$\begin{array}{r} 1,002 \\ 957 \\ 800 \\ +101 \\ \hline \end{array}$$

THIS PAGE SHOWS HOW THE RESPECTIVE PAGES APPEARED ON PARTICIPANTS' TELEWRITER MONITOR SCREEN.

*Page 7*

11. For each picture write a fraction that Shows the part that is shaded. Reduce if necessary.

*Page 8*

12. Reduce each fraction to lowest terms.

a)  $\frac{15}{35}$

b)  $\frac{40}{100}$

13. Change each fraction to a mixed number and reduce, if necessary.

a)  $\frac{51}{8}$

b)  $\frac{7}{7}$

THIS PAGE SHOWS HOW THE RESPECTIVE PAGES APPEARED ON PARTICIPANTS' TELEWRITER MONITOR SCREEN.

*Page 9*

14. Change each fraction to an improper fraction.

a)  $8 \frac{1}{3}$

b)  $5 \frac{3}{4}$

15. Which is greater,  $\frac{8}{15}$  or  $\frac{2}{3}$ ?

*Page 10*

Solve these problems. Reduce where necessary.

16. 
$$\begin{array}{r} \frac{7}{10} \\ + \frac{1}{10} \\ \hline \end{array}$$

17. 
$$\begin{array}{r} \frac{4}{7} \\ - \frac{2}{7} \\ \hline \end{array}$$



THIS PAGE SHOWS HOW THE RESPECTIVE PAGES APPEARED ON PARTICIPANTS' TELEWRITER MONITOR SCREEN.

*Page 11*

Solve these problems. Reduce where necessary.

$$18. \quad \begin{array}{r} 41 \\ 3 \\ 33 \\ \hline 20 \\ +25 \\ \hline 6 \end{array}$$

$$19. \quad \begin{array}{r} 81 \\ 3 \\ -43 \\ \hline 5 \end{array}$$

*Page 12*

$$20. \quad \frac{2}{3} \times \frac{5}{6} =$$

$$21. \quad \frac{3}{5} \times 1\frac{1}{9} =$$

$$22. \quad \frac{5}{9} \times 12 =$$

$$23. \quad \frac{1}{3} \times \frac{4}{7} \times \frac{14}{15} =$$

THIS PAGE SHOWS HOW THE RESPECTIVE PAGES APPEARED ON PARTICIPANTS' TELEWRITER MONITOR SCREEN.

*Page 13*

Divide and reduce where necessary.

24.  $8 \div \frac{6}{7}$

25.  $5\frac{3}{4} \div 4\frac{1}{2} =$

*Page 14*

Solve these problems.

26. Jack and Caren want to buy a \$132,000 house. They have to make a down payment of  $\frac{1}{5}$  the price of the house.

How much is the down payment?

27. Jolene paid \$19.10 for  $3\frac{1}{2}$  kg of fish. What was the price per kg?

# APPENDIX C • SCORING GUIDES FORM

Building Basic Skills for Adults in Small Remote Communities

## ENTRY MATH: MARKS RECORD

PAGE	ITEM#	ITEM	MARKS PER QUESTION	EXPLANATORY NOTE	MARKS	MARKERS COMMENTS
2	1	Whole numbers add.	7	a1, b1,c2,d3		
3	2	Whole numbers sub.	6	a1, b1,c2,d2		
4	3	Whole number multiply	7	a1, b1,c2,d3		
5	4	Whole numbers divide	8	a1, b2,c2,d3, ( 2 for work, 1 for operation and answer)		
6	5	Fractions	2	5 per item		
7	6	Fractions add	5	a1, b2,c2		
8,9	7	Fractions subtraction	7	a1, b2,c2,d2		
10,11	8	Fractions multiply	10	a1,b2,c2,d2,e3		
12	9	Fractions divide	5	a1, b2,c2		
13	10	Decimals: add	2	a1,b1		
	11	Decimals: subtract	3	a1,b2		
14	12	Decimals: multiply	4	2 per item		
	13	Decimals: divide	6	2 per item		
15	14	Decimals to %	2	1 per item		
	15	Fractions to %	2	1 per item		
	16	% to decimals	2	1 per item		
16	17	Problem: fraction	2			
17	17b	Problem: decimal add	2			
18	17c	Problem: division	2			
19	17d	Problem: multiply	2			
20	17e	Problem, % and add	5	Knowing % 1: sale price1:gst1: fst 1: final answer 1		
21	17f	Problem: multiply	2			
22	17g	Problem: multiply	2			
23	17h	Problem: multiply	5	Total hours1: gross pay1: total deductions 1: net pay 2		
		<b>Total</b>	<b>100</b>			

**ENTRY ENGLISH: MARKS RECORD**

PAGE	ITEM#	ITEM	MARKS PER QUESTION	EXPLANATORY NOTE	MARKS	MARKERS COMMENTS
32	1	Info Entry	4	.5 for code, .5 for telephone all others 1 per line		
33	2	Alpha Order	2	1 mark per item		
	3	Vowels	2	1 mark per item		
34	4	Spelling	6	1 mark per item		
	5	add "s/ ed	4	1 mark per item		
35	6	add "ed"	5	1 mark per item		
	7	add " ing"	4	1 mark per item		
36	8	Alpha Order	6	1 mark per item		
	9	Dictionary	2	.5 for finding word, .5 for correct listing		
37	10	Punctuation	2	Watch out! 2		
	11	Punctuation	4	Dr. Black 1, Christmas Day1, Tuesday 1, December 25th 1		
38	12	Punctuation	4	Mark .5, Big Macs 1, 2 fries, 1 McDonalds. 1.5		
	13	Punctuation	4	Which larger, 1: Pacific Ocean 1: Atlantic Ocean? 2		
39	14	Grammar	6			
40	15	Subject/ Verb	6	2 per sentence		
41	16	Verb tense	3	1 per sentence		
42	17	Sentence as a complete thought	6	1 per sentence		
43	18	Reading Comprehension	20	a- 7 marks,b-2 marks per sentence, c 1 mark per meaning (full sentences required)		
44	19	Writing	10	Full sentences 4., punctuation 2: organization 2, paragraph length 2		
		<b>Total</b>	<b>100</b>			

**ENTRY ENGLISH: MARKS RECORD**

PAGE	ITEM#	ITEM	MARKS PER QUESTION	EXPLANATORY NOTE	MARKS	MARKERS COMMENTS
2	1	Write numbers	1			
2	2	Round numbers	1			
3	3	Whole numbers addition	2			
	4	Whole numbers addition	2			
	5	Whole numbers subtraction	2			
4	6	Whole numbers multiply	2			
	7	Whole numbers subtraction	2			
5	8	Whole numbers division	2			
	9	Whole numbers division	2			
6	10	Problem multiply	2			
7	11	Fractions recognition	1	.5 per item		
8	12	Fractions reduce	2	1 per item		
	13	Mixed fractions reduce	2	1 per item		
9	14	Improper fractions	2	1 per item		
	15	Improper fractions	1			
10	16	Fractions: Add & Sub	2			
	17	Fractions: Add & Sub	2			
11	18	Mixed fractions Add	2			
	19	Mixed fractions Add	2			
12	20	Fractions multiply	2			
	21	Mixed fractions multiply	2			
	22	Fractions multiply	2			
	23	Mixed fractions multiply	2			
13	24	Mixed fractions divide	2			
	25	Fractions divide	2			
14	26	Problems multiply fractions & decimals	2			
	27	Problems division fractions & decimals	2			
		<b>Total</b>	<b>50</b>			

**PROGRESS ENGLISH: MARKS RECORD**

<b>PAGE</b>	<b>ITEM#</b>	<b>ITEM</b>	<b>MARKS PER QUESTION</b>	<b>EXPLANATORY NOTE</b>	<b>MARKS</b>	<b>MARKERS COMMENTS</b>
32	1	S/V Agreement	2	.5 per item		
33	2	Sentence Type	2	.5 per item		
34	3	S/V recog.	4	2 marks per item		
35	4	compound sentences	4	2 marks per item		
36	5	caps and periods	5	.5 per item		
37	6	Commas	4	.5 per item		
38	7	Contractions	5	.5 per item		
39	8	Nouns vs. pronouns	2	.5 per item		
40	9	plural nouns	2	.5 per item		
41	10	Pronouns	2	1 per item		
42	11	past tense	5	1 per item		
43	12	collective nouns	1.5	.5 per item		
43	13	abstract nouns	1.5	.5 per item		
44	14	proper / common	2	.5 per item		
45	15	sentence writing	6	2 per sentence		
46	16	answer questions	2	1 per sentence		
46	17	answer questions	4	1 per sentence		
46	18	Reading Comprehension	6			
		<b>Total</b>	<b>60</b>			



- 15) **How important is learning to Read and Write to you?**  
 Very important      important      somewhat important      not important
  
- 16) **How important is learning to do Math to you?**  
 Very important      important      somewhat important      not important

***Recorder's Details and Comments***

- A) **How long did the volunteer take to do the Math assessment ?**  
 \_\_\_\_\_ Minutes
  
- B) **How long did the volunteer take to do the English assessment ?**  
 \_\_\_\_\_ Minutes

**ADDITIONAL COMMENTS:**

\_\_\_\_\_  
**Recorder:**

\_\_\_\_\_  
**Date:**

**ABORIGINAL PEOPLE** AN ABORIGINAL PERSON is a North American Indian or a member of a First Nation, Métis or Inuit. North American Indians or members of a First Nation includes status, treaty or registered Indians, as well as non-status and non-registered Indians.

**VISIBLE MINORITY** A PERSON IN A VISIBLE MINORITY GROUP is someone (other than an Aboriginal person as defined above) who is non-white in colour/race, regardless of place of birth.

**PERSONS WITH A DISABILITY** A PERSON WITH A DISABILITY has a long term or recurring condition or health problem which limits the kind or amount of activity that he/she can do in the workplace; -OR- feels that he/she is perceived by others as limited in the kind or amount of work which he/she can do because of a physical, mental, sensory, psychiatric or learning impairment.