

## Going the Distance Research Project Pilot Phase Report

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*Going the Distance: Equipping Rural Newfoundlanders and Labradorians with the Abilities and Skills to Succeed in Online Learning* is a research project led by Newfoundland & Labrador Laubach Literacy Council and funded by the NL Workforce Innovation Centre (NLWIC).

The NLWIC, administered by the College of the North Atlantic (CNA), has a provincial mandate to provide a co-ordinated, central point of access to engage all labour market stakeholders about challenges, opportunities and best practices in workforce development.

The Centre's goal is to promote and support the research, testing and sharing of **ideas** and models of **innovation** in workforce development that will positively **impact** employability, employment, and entrepreneurship within the province's labour force and particularly under-represented groups. Funding for NLWIC is provided by the Department of Advanced Education, Skills and Labour (AESL) under the Canada-Newfoundland and Labrador Labour Market Development Agreement.



### **Abstract**

Many rural Newfoundlanders are too remote to travel to available literacy skills services and lack the writing and computer skills to access such services in an online environment. Newfoundland and Labrador Laubach Literacy Council's (NLLLC) GOING THE DISTANCE: Equipping rural Newfoundlanders and Labradorians with the abilities and skills to succeed in online learning Research Project (Going the Distance) aims to identify the barriers to online learning that exist for rural Newfoundlanders and Labradorians who have limited writing and computer skills and how these barriers might be overcome. The primary goals of the pilot phase of this research project were to assess and modify, if necessary, the interview questions, interviewee recruitment process, interview techniques, and overall research methodology of the project. Few changes to the interview questions were made; however, some modest changes to the recruitment process resulted in significant improvements in participant enrollment (See Appendix 1). These changes to the interview process led to a faster and deeper development of rapport between the researchers and the participants. Finally, initial responses were analyzed and broad coding categories were developed.

### **Introduction**

Many Newfoundlanders and Labradorians are unable to participate in the growing trend of online education. This is unfortunate because education is needed to join and participate in today's workforce. NLLLC provides one-to-one tutoring to people living in areas of the province who have access to this service but those living in rural areas of the province cannot avail of this. Those who have limited writing and computer skills are even more disadvantaged.

This research project aims to equip this underrepresented group by providing a learning platform that not only links people with literacy tutors but also provides them with the tools to continue to study online. In order to do so, participant's computer skills and technological ability will be assessed using in-depth interviews with rural Newfoundlanders and Labradorians. Based on findings from these interviews, the researchers hope to populate a user-friendly, accessible and free of charge learning management system (LMS) with the NLLLC's learning materials.

The primary goals of the pilot phase of this research project were to assess and modify, if necessary, the interview questions, interviewee recruitment process, interview techniques and overall research methodology.

### **Background**

Newfoundland and Labrador has the highest number of working-aged people without a high school diploma at 15.7% compared to the national average of 11.5% (Literacy and Institutional Services Division Advanced Education, Skills and Labour, 2018). With 60% of the population of Newfoundland and Labrador living in rural areas, the opportunity to further their education is challenging. For many, learning online may be their only option. To offer education to those living in rural areas we need to provide them with an effective online learning tool. However, online learning may be challenging for many people since it relies heavily upon literacy skills; i.e. writing and computer skills. NLLLC offers free literacy training for adults in the form of one-to-one tutoring in a face-to-face environment. Currently NLLLC reaches about 100 people across the province, however, only in areas where there is a literacy council, leaving rural Newfoundlanders and Labradorians unserved. By equipping people with the skills to

participate in NLLLC training online, participants may develop the skills they need to further their education through online learning opportunities.

By identifying the barriers and solutions to online learning that exist for rural Newfoundlanders and Labradorians who have limited writing and computer skills, the goal of this research project is to improve educational outcomes for individuals as a means to then gain successful employment. By offering online education using a free learning management system such as Moodle or Google Classroom, this goal may be achieved..

### **Literature Review**

Before piloting the interview guide, we conducted a literature review. For brevity, we note the key findings in this pilot phase report; however, the complete literature review will be included in the final research project report.

### **Key Findings**

Much of the literature about online learning highlights its flexibility and unique limitations. However, research does not identify barriers to online learning that exist for those who cannot type or write well-structured sentences and paragraphs. This is important because online learning relies heavily upon writing and keying emails and messages. By considering the needs of learners with low writing and computer skills, we can create a more inclusive learning environment at any level. Digital immigrants – those who did not grow up with the internet – must become adept at participating in online learning as more and more colleges, universities, and corporations are shifting toward this approach to learning, training, and development. Recent Census data reports that Newfoundlanders and Labradorians are lagging behind in the following areas:

- 15.7 % of those aged 25-64 do not have high school certification compared to 11.5% nationally
- 8% of those aged 25-34 do not have high school certification which is about the same as the national average of 8.7 percent
- 17.2% of those aged 45-54 do not have high school certification
- 23.75 of those aged 55-64 do not have high school certification (Government of Newfoundland and Labrador, 2016)

Among other things, the literature indicates that lack of social interaction is the often-repeated barrier for students who study online. Even articles that focus on the role of faculty and course design, all indicate that social interaction is key to success. While real time, or synchronous interaction is often beneficial in providing social interaction, it is also a hindrance if it impedes upon the flexibility of studying online. This is important to keep in mind as we continue our research because NLLLC training is a real-time learning opportunity. However, content delivered online may also be available for participants to explore on their own. Ultimately, this research project aims to identify barriers for learners with low writing and computer skills so that they may further their education from their own homes via online learning.

## **Design and Methodology**

### **Design**

A qualitative approach, with semi-structured interviews to gather data, used for this research, allowed the researchers access to the participants to explore the “depth, detail and individual meaning” (Patton, 1990, p. 17). In her book, *Qualitative Researching*, Jennifer Mason

(2002) highlights some of the strengths of qualitative interviews that are sometimes overlooked.

She says that through a qualitative interview, the researcher is more able to understand:

the texture and weave of everyday life of the participants; the understandings, experiences and imaginings of research participants; how social processes, institutions, discourses or relationships work; and the significance of the meanings that they generate. Ultimately, this phenomenological approach will lead to a better interpretation, and consequently a better understanding of the experiences, of the participants of the study. (Merrigan et. al, 2012).

Guided by Memorial University's policies and procedures for conducting research, the researchers presented their project idea to potential participants in settings where they normally gather; i.e. adult basic education classrooms, work preparedness training, and the like.

Participation forms were distributed to the entire group but were designed in a way that the process of filling out these forms did not identify anyone who agreed to be contacted for an interview (see Appendix B). Participants who agreed to be interviewed were provided with the information and consent form (Appendix C) and given the opportunity to withdraw. Both the participation form and the information and consent form were approved by the Grenfell Campus Research Ethics Board (MUN). The information and consent form provided potential participants with the researchers' contact information giving them the opportunity to consent, withdraw, or ask further questions before they consented to an interview. The information and consent form also ensured the participants' anonymity and confidentiality are protected.

The function of this pilot phase was to examine the criteria for selecting potential participants and to evaluate the effectiveness of the interview guide. This pilot phase analyzed the data collected through interviews with participants and used a qualitative approach by completing one-on-one interviews. Participants are learners with low writing and computer skills living in rural areas of the province and were identified and recruited with input from NLLLC and the Going the Distance Research Project Steering Committee. The pilot phase will look at

outcomes of the interview guide and recruitment methods in order to inform the main research project.

The research instruments were designed to bring about conversations with participants in hopes of learning the following:

1. The educational background and goals of participants are used to determine if participants were suitable candidates for this research project. It is also important to know this because it may illustrate whether or not the individual plans to pursue further education.

2. The past learning experiences of participants and whether positive and/or negative may describe participants' experiences that impacted their education. This data will highlight any positive or negative impact their previous educational experience may have had on their continuing education.

3. Their knowledge of online learning may give insight into how they view online learning as advantageous or disadvantageous. Knowing participants' awareness of online learning will help us understand whether or not the participants distinguished between formal and informal online learning. For example, there would be a disconnect in the conversation if the researchers are referring to online learning as a way to gain high school or college credit while the participants view online learning as a way to get access to information for immediate use such as "looking up how to build a shed". Even if we learned they had little or no knowledge of online learning was of value, since it gave us insight into how to conduct our conversations with participants.

4. Knowing the participants' current familiarity and use of technology will help determine course design and delivery of the NLLLC curriculum in an online environment.

5. Knowing what the participants identify as their barriers to online learning, such as financial strain, family and work commitments, level of education, etc. will help identify solutions to overcoming these barriers.

6. Understanding the learning styles of participants will help guide the teaching methods used in design and delivery of the online learning content. For example, participants may say they prefer learning by listening to a lecture, watching a video, or performing at hands-on activity, as well as group discussion.

7. Gaining an understanding of what supports are needed to accommodate participants' learning, such as large text, hearing assistance, etc., will help ensure content and delivery are accessible.

## **Methodology**

The following steps were taken to help the researchers test and revise, if needed, an effective interview guide for the main research project. The steps taken to achieve this were as follows:

### **Step 1: Determine the Interview Questions**

The interview questions were constructed to answer the research question: What are the barriers to online learning that exist for rural Newfoundlanders and Labradorians who have limited writing and computer skills and how might these be overcome? The questions were designed as open-ended questions relating to educational experiences, use of technology, and knowledge about online learning.



**Step 2: Review the Interview Questions**

The Steering Committee reviewed the initial interview questions and feedback was brought forward. This process was helpful in narrowing down the questions and revising them so that they focused on the research question.

**Step 3: Recruitment and Selection of Participants**

To find subject participants, we used a multi-pronged approach using social media, traditional advertising (i.e. newspaper, radio, and cable television), participant referrals, posters in local businesses and employment preparation offices. We also availed of personal contacts and the Steering Committee. Members of the research team will travel to rural areas of Newfoundland and Labrador to meet with subjects to complete one-on-one interviews.

Although a mass email was completed with the project brochure attached, it received zero responses. Discussions at the Steering Committee meetings led us to community agencies such as Discovery Centres, Community Youth Networks, Community Education Networks, YMCAs, as well as institutions offering Adult Basic Education – DieTrac and Keyin. The researchers called these organizations and asked to present to their students and clients. This allowed direct access to potential research participants. We chose not to use PowerPoint to present but instead relied upon a conversational approach. Following the first presentation at Discovery Centre in Harbour Grace, we learned key words and ideas to add or avoid during recruitment. For example, the word *interview* was avoided because it can be perceived as stressful. We also emphasized that the two researchers presenting to them are the only two people who would contact them and conduct their interviews. They would not be contacted by someone whom they had not met.

Special emphasis was given to ensuring their anonymity and confidentiality and that participation was totally voluntary. Before we left a room of potential participants, we often felt a rapport had been established.

#### **Step 4: Pilot the Interview Guide**

The interview guide was piloted using the first six interviews. This practice gave us confidence in our interviewing techniques. Because the questions were open-ended it allowed for a natural conversation. For example, depending on the responses of some participants, we realized that the phrase “online learning” may need to be replaced with “taking a course on the computer”.

#### **Step 5: Conduct Data Analysis**

Because we knew little about our research participants, we used an inductive coding method which is appropriate to this form of exploratory research. The first step was to find any references to the subjects’ names and replace these names with a participant number. Participants were now referred to as Participants 1 through 6. The second step was to read through the data collected from the participants to become familiar with it and to get an idea of what the overall data looked like. We annotated our transcripts of the six interviews and recorded broad code names for future reference. These code names included: barriers, online learning, rural, limitations, writing, reading, computer skills, goals, finances, teachers/instructors, course design, social, transportation, and mental health. The third step was to code each transcript line-by-line coding as many words as possible, placing them under the broader code names identified above. As an example, the phrase “I have anxiety so if I had a computer, I could do my work from home”, was coded under barriers, limitations, social, and mental health. Last, we categorized our data by putting similar codes into the same categories. This was done in order to find any

overarching themes in our data. From the initial six sets of data used for this pilot, we felt finances, connection to an instructor/teacher, and transportation were common barriers. We also discovered that though participants were not experienced in online learning per se; they all used YouTube to teach themselves a new skill.

### **Step 6: Report on Modifications**

We discovered that the use of our interview guide not only identified barriers but also revealed rich data about what would be needed to create a suitable online course for our target population. No modifications to the interview guide were required.

### **Lessons Learned**

Rapport building in a very short time (twenty minutes or less) is extremely important.

After our first presentation, we made the following adaptations:

- We changed the word “interview” to “conversation” or “chat”.
- We wore casual clothing.
- We used people’s names as quickly as we could learn them.
- We did not carry briefcases, laptops, or recording devices into the presentation.
- The researchers’ definition of online learning is sometimes different than the participants’ definition.

We learned that transcribing the data immediately following an interview was key to capturing any subtle nuances as well as broader messages. It also meant information was not lost in the note taking practice. For example, a long pause before answering a question may be lost if not noted and captured in the transcribed document.

We also learned that the one-to-one interview process became a comfortable environment for participants to share their past learning experiences, especially any negative or long-lasting impacts. For example, many would describe the reasons why they never received their high school diploma. Both researchers agree that this was a humbling and rewarding experience for them both.

### **Conclusion**

The results of the pilot phase suggest that the researchers are on track to achieve the primary goal of this research project. The results seem to suggest that there may be solutions to several barriers to online learning that exist for rural Newfoundlanders and Labradorians who have limited writing and computer skills. The initial multi-pronged recruitment strategy, including a mass email with the project's brochure attached, proved unsuccessful. Direct contact with various community agencies lead not only to the initial six interviews for the pilot phase, but the complete set of interviews required for the project. Thanks to the guidance of the Steering Committee, the use of open-ended interview questions proved to be a successful strategy. As such, few modifications to the interview questions were necessary. The researchers soon discovered that establishing rapport with the interviewees early on in the discussion was critical to obtaining reliable and valid data, thus several modifications to the presentation style were adapted and successfully implemented. These initial findings seem to support the barriers identified in literature. Barriers such as money, access to a computer, negative former learning experiences and technological skill level all appear to obstruct online learning for rural Newfoundlanders and Labradorians. Therefore, further research into this subject is necessary so

the problems for this group of online learners can be better understood, and thus solutions developed.

## References

Government of Newfoundland & Labrador. (2016). *The way forward: A vision for sustainability and growth in Newfoundland and Labrador*. St. John's, NL: Government of Newfoundland and Labrador.

Literacy and Institutional Services Division Advanced Education, Skills and Labour (2018). *A discussion guide for adult literacy in Newfoundland & Labrador*. Newfoundland & Labrador: Literacy and Institutional Services Division Advanced Education, Skills and Labour.

Mason, J. (2002). *Qualitative Researching*, London: Sage Publications.

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## **APPENDIX A**

### **GOING THE DISTANCE**

#### **Research Project**

#### **Interview Questions**

1. What are your educational goals? For example, ABE, GED, Certificate, Diploma, Degree? Workplace training? Other?
2. Are there any reasons why you would not continue your education? Examples: work schedule, transportation, child care.
3. Would you describe your past education experiences as positive or negative? Can you tell me about that?
4. How do you learn best? (audio/lectures, visual/video, hands-on, reading text, reading text with visuals, social/group)
5. What do you know about online learning?
6. What barriers do you face to online learning? Financial? Health? Family? Work? Education level?
7. Do you think you would enjoy the learning experience if you were to take a course online? Why/why not?

8. What support would you need to participate in online learning; such as, assistance with hearing audio? Large text?
9. What do you see as the advantages of learning online?
10. What do you see as the disadvantages of learning online?
11. How do you feel about speaking with an instructor online E.g. FaceTime, Facebook Live? Teleconference?
12. Have you ever done a telephone job interview? Can you describe that experience?
13. Have you ever done a video conference? Can you describe that experience?
14. Have you ever used the internet to learn a new skill? For example, YouTube, Google, other?



**APPENDIX B**

Presentation location (for example, Grand Falls-Windsor): \_\_\_\_\_

Community Association (for example, YMCA, Discovery Centre)\_\_\_\_\_

I am 19 years old or older:

Yes\_\_\_\_\_

No\_\_\_\_\_

I agree to be contacted for an interview:

Yes\_\_\_\_\_

No\_\_\_\_\_

If you choose YES, what is your name? First name only is ok: \_\_\_\_\_

Phone #:\_\_\_\_\_

**WHEN COMPLETED,**

**PLEASE FOLD THIS PAPER IN HALF**

## APPENDIX C

### **Going the Distance: Equipping Rural Newfoundlanders & Labradorians With the Abilities and Skills to Succeed in Online Learning**

#### **Informed Consent Form**

**The purpose of this Informed Consent Form is to ensure you understand the nature of this study and your involvement in it. This consent form will provide information about the study, giving you the opportunity to decide if you want to participate.**

**Researchers:** This study is being conducted by Kelly Taylor-Hulan and Todie Winter. We are employed by NL Laubach Literacy Council and funded by NL Workforce Innovation Centre.

**Purpose:** The study is designed to identify barriers to online learning that exist for adults living in rural Newfoundland and Labrador who have limited writing and computer skills. The results will be used to write a report as part of the requirements of our contract with NL Workforce Innovation Centre.

**Task Requirements:** You will be asked to do a one-on-one interview in which you will be asked a series of questions about your interests in online learning and barriers you face continuing your education. You may choose to do the interview in person or telephone.

**Duration:** The interview will take approximately 45 minutes to complete.

**Risks and Benefits:** There are no known risks because all interviews will be done in private.

**Anonymity and Confidentiality:** Your responses are anonymous and confidential.

**Right to Withdraw:** Your participation in this research is totally voluntary and you are free to stop participating at any time. You are not obligated to answer any specific questions even if you participate in the study. You can opt out of participating at any time without any sort of penalty by simply ending the interview. Data from interviews that are not fully completed will not be used. If you volunteer to participate in the interview, you will have up to two (2) weeks after the date of the interview to withdraw from the study.

**Contact Information:** If you have any questions or concerns about the study, please feel free to contact us at [kellytaylorhulan@gmail.com](mailto:kellytaylorhulan@gmail.com) or [tfwinter@gmail.com](mailto:tfwinter@gmail.com) or our project manager, Margie Lewis at [laubach@nf.aibn.co](mailto:laubach@nf.aibn.co)

As well, if you are interested in knowing the results of the study, please contact us or Ms. Lewis after February 28, 2022.

This study has been approved by an ethics review committee at Grenfell Campus, Memorial University of Newfoundland and has been found to be in compliance with Memorial University's ethics policy.

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I acknowledge that I have been informed of, and understand, the nature and purpose of the study, and I freely consent to participate. This Informed Consent Form will be placed in a separate envelope to ensure anonymity.

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