



EDUCATION, TECHNOLOGY AND CAREER DEVELOPMENT FOR PEOPLE WITH PHYSICAL DISABILITIES.

Reading Between The Lines

A practical guide for organizations and individuals wishing to improve the accessibility of their literacy programs to people with physical disabilities.

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THE NEIL SQUIRE FOUNDATION

Mission

The Neil Squire Foundation (NSF) is a Canadian not-for-profit organization that provides education, technology and career development for people with disabilities. Through direct interaction with these individuals we research, develop, and deliver appropriate innovative services and technology to meet their needs.

Overview of Programs

We offer literacy programs in our New Brunswick, Ontario and Saskatchewan offices.

In New Brunswick, our Educational Options Program offers academic upgrading training up to the grade 12 level for adults who have physical disabilities and are unable to access other available literacy training programs.

In Ottawa, the Access to Literacy is designed to help adults with physical disabilities find ways to improve their reading and writing skills. Literacy skills are developed with a view to improving community independence, preparation for continued education and/or entrance into gainful employment.

In Regina, we offer S.A.R.A.W. or Speech Assisted Reading And Writing. This is a computer based literacy program for adults who have low level literacy skills. It is suitable for adults with significant physical disabilities, particularly those who are non-vocal.

Computer Comfort is a computer familiarization program where volunteers work one-on-one with individuals who have significant physical disabilities. However, our largest and most comprehensive service, which is offered in every regional office, is the Employment Access Skills Enhancement (E.A.S.E.) program. The E.A.S.E. program is a modular employability program for people with physical disabilities which can be customized to meet the differing needs of our adult participants. Another service offered in each of our regions is the Consultation and Assessment Services (C.A.S.). This service is more particularly focused on recommending appropriate computer equipment, assistive technology, and ergonomic equipment as well as providing the training to use it. Finally, our Research and Development Group is focused on developing and testing technology to benefit people with physical disabilities.

For more information contact: info@neilsquire.ca or visit www.neilsquire.ca.

INTRODUCTION

Purpose of the Handbook

This handbook is designed to help anyone offering literacy training to people with physical disabilities make their services truly accessible to their client group. The information presented here is the result of a review of the existing literature and of conducting 27 interviews across Canada with people with a physical disability who have self-identified problems with reading and writing.

Background

Literacy training for many people with disabilities plays a critical role in helping them move from a place of marginalization towards the mainstream of society, including opening up opportunities to enter the workforce. There is little or no data in the research describing the personal experiences of people with physical disabilities seeking access to literacy activities. We need this information so we can better understand how to create accessible opportunities for people with physical disabilities in an effort to improve their literacy levels.

In our research study entitled *Barriers to Participation in Literacy Activities Facing People with Physical Disabilities*, we used a semi structured interview to collect information directly from people with physical disabilities about their perceptions and experiences of barriers preventing them from participating in literacy programs and otherwise improving their literacy skills. We also conducted a thorough analysis of the literature from Canada and other countries. Through our steering committee we were also able to capitalize on our collective experience of providing education, technology and career development services to people with significant physical disabilities.

A number of studies (Neil Squire Foundation, 1999; Panitch & Ticoll, 1995; Lockert, 1999) have identified the lack of accessible literacy programming and services for people with disabilities that are learner-centred and inclusive. Learning disabilities, environmental barriers and health concerns also exclude this population from participating in currently available programs. Many people with complex multiple physical and learning disabilities require one-to-one attention, a specially designed environment and specialized equipment in order to make learning accessible and to facilitate learning new skills. Based on these previous studies and an extensive literature review, Macht (2000) made the following general recommendations aimed at improving literacy opportunities and outcomes for people with disabilities:

1. Make all mainstream literacy programs accessible to people with all types of disabilities.
2. Foster cooperation and linkages within and between the literacy and disability communities.
3. Facilitate the documentation and widespread dissemination of best practices.

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4. Provide opportunities for trainer education.

By providing effective literacy training the potential for some of this group to move on to further educational and career development activities can be facilitated. This would increase the opportunities for community integration or “full citizenship” for those who are most marginalized by their disability and ultimately create opportunities for improvements in their vocational, social, and economic status (Macht, 2000).

Little research has, however, been conducted to explore the meaning of literacy from the perspective of the individuals with physical disability (Brewster, 2004; Butler, 1991). This type of consultation is a crucial component in developing effective literacy programs that address the needs of both this population and specific individuals (Macht, 2000). Practitioners in the literacy community have been extensively consulted with regard to professional development needs; however, “there seems to be very little information about any concerns people with disabilities themselves have regarding literacy programs” (Macht, 2000, p. 27).

One idea that could move literacy programs toward the goal of accessibility may be very simple. In particular, an idea that all literacy programs need the knowledge and ability to accommodate any learner, no matter what means are required. Bulgren et. al (1998) published *Accommodating Adults with Disabilities in Adult Education Programs*, which is a framework and sequence for working with adult learners to: confirm their disability; assess their functional needs; select appropriate accommodations; provide instruction for using accommodation(s); and monitor accommodation effectiveness. It may be that a tool such as this needs to be made available to all literacy programs when working with a student who has a disability. Thus, when it comes to accommodating a student with a disability, knowledge is a very important factor.

The Roeher Institute is a strong advocate of inclusive literacy education (Bach, 1990) and has long advocated for the inclusive literacy education of adults with intellectual disabilities. The Institute has published several practical tools that can help advance the cause of inclusive literacy education in Canada. *Speaking of Equality: Making literacy programs accessible to people with intellectual disabilities* and *Literacy in Motion: A guide to inclusive literacy education* (3 volume series), are templates that can be used by literacy programs throughout Canada and help them to become more accessible to people with disabilities. These templates provide the criteria and methods for planning and delivering an inclusive literacy program.

For more information on the ‘Barriers to Participation in Literacy Activities Facing People with Physical Disabilities’ research project please contact Neil Squire Foundation at info@neilsquire.ca or visit www.neilsquire.ca. You can contact Tim Readman at tim@timreadman.com or by visiting www.timreadman.com.

BARRIERS TO LEARNING

The following barriers to learning were identified by the people with physical disabilities that we interviewed. We believe it is critical for those wishing to offer literacy training to these individuals that they have an appreciation and an understanding of the nature of these barriers.

The Emotional Response to Literacy Difficulties

The experience of having literacy problems was clearly associated with a wide range of emotional responses related to an undermined sense of self-worth and self-esteem, anger, frustration, inability to contribute fully to society, lack of motivation, embarrassment and fear of censure.

The participants, in making these comments, were sharing the feelings related specifically to their literacy problems. These are in addition to the emotional energy required of individuals managing a disability in society. Literacy is seen as a “normal” taken-for-granted activity; a way of maintaining a connection with the able-bodied community which is denied to them. These emotional responses reflect an underlying theme of judging oneself as “inferior” or “incompetent” and internalizing a depreciated view of one’s own potential. Such emotions are barriers to learning and need to be acknowledged and accommodated for by those who plan and implement adult literacy programs for people with disability.

Attitudes and Expectations of Others

Attitudes and expectations (and on occasion the misplaced best intentions) of teachers and family members influence the ability of people with physical disabilities to access support, information, and technology. The expectations and priorities of others, particularly in their formative years, negatively influenced their performance and ability to learn the basics of reading and writing. Having a disability is still often associated by others with a low expectation or value of the individual as a contributing member of society.

Teachers with no experience working with people with disabilities are likely to be mostly ill-prepared and may not be adequately supported to address academic issues and disability.

A general lack of understanding about the consequences of a physical disability and the continued existence of unchallenged myths about the capabilities of people with disabilities continue to create barriers to learning for this population. These experiences suggest that designers and instructors of literacy programs involving people with disability need to engage in disability awareness training initiatives. Such initiatives should provide the opportunity for instructors to ask questions and increase their comfort level by actively involving learners with disabilities.

Negative Experience of School

Many of the people we interviewed spoke of negative experiences at elementary and high school. These experiences focused primarily on their perception that they did not fit into the existing education system and no real attempts were made to accommodate their special needs.

Twenty of the participants (i.e. 77%) in our research project are over 30 years of age, and as such their experiences and perceptions of the school system may not reflect the current situation. While younger people with disabilities may have an improved and more positive experience of the school system, those experiences shared by the predominantly older participants in our study provide valuable information for adult literacy program developers. It is this group of learners who may choose to upgrade their literacy skills. Negative experiences of this nature may present significant barriers to learning for this age group which must be acknowledged by planners and instructors.

Physical barriers

Difficulties caused by physical problems resulting from physical disability, such as, poor coordination, difficulty holding/manipulating a pen or a book, spasticity, and being unable to read small print, need to be addressed when attempting to provide literacy training to this population.

RECOMMENDATIONS AND USEFUL STRATEGIES

Awareness

Effective strategies are needed to get the message across that literacy programs are available to this population. Individuals with physical disability need support in getting plugged into the system. Potential learners frequently do not realise that colleges do provide literacy programs which they can attend even though they have reading and writing difficulties. There is also a need to create awareness of disability-related issues amongst literacy practitioners.

Assessment

A thorough assessment of each individual learner at the start of any literacy program would allow those providing the service to be fully informed about the person's unique learning needs and to determine the exact nature of the person's literacy issues. It would also allow service providers to gauge the level of support and instructional level that the learner requires.

The following factors could be included in such an assessment:

- Literacy level (e.g. comprehension, reading, writing levels and abilities)

- The learner's level of interest / motivation / own attitude
- Learning disability
- Cognitive difficulties (e.g. memory problems, attention deficit)
- Psychiatric problems
- Mobility and agility and whether mobility aids are needed
- Social factors
- Social and family circumstances - support network, community involvement
- Financial circumstances
- Perceptual problems
- Sensory impairment – need for sensory aids
- Insight (e.g. some participants do not recognise the extent of their literacy problems)
- Emotional state – there are some powerful emotions, notably anger and frustration associated with literacy problems.

Special Needs Assessment Procedures: A guide to ensure equal access to literacy programs for adults with disabilities is a very useful resource. To order the paper edition, please contact: The Toronto District School Board, or visit <http://gear.torque.net/~bpd/dev/snap/>.

Evaluation

It is advisable to incorporate both formative and summative evaluations in the programs being planned, and ensure that the learner's feedback is systematically utilized and enacted. Formative evaluations provide information to improve an educational product or process. Summative evaluations provide short-term effectiveness or long-term impact information to decide whether or not to adopt an educational product or process.

Principles of Adult Education

In order for learners to improve their literacy skills, the service provider must be knowledgeable of these principles and innovatively incorporate them in facilitating learning.

- **Pacing**

In order to address the different learning needs and styles of the adult learner, it is critical that the learning takes place at a pace and in a manner that suits the learner. People with physical disabilities often comment that information is presented in a manner that is too fast for them to comprehend or in a way that they find inaccessible due to complicating factors such as sensory impairment. It is also crucial that the person's learning style is understood and addressed (e.g. some people learn better from visual information, others from auditory instruction).

- **Autonomy and Self-direction**

Learners need to be free to direct themselves. Instructors must actively involve them in the learning process and serve as facilitators for them. Specifically, instructors must get the participants' perspectives about what topics to cover and let them work on projects that reflect their interests. Instructors need to act as facilitators, guiding participants to their own knowledge, rather than supplying them with facts.

- **Life Experience**

Learners have accumulated a foundation of life experience and knowledge that may include work-related activities, family responsibilities and previous education. They need to connect new learning to this existing knowledge and experience base. It is important that these adult experiences and capabilities are fully acknowledged.

- **Goal Orientation**

Instructors must clearly demonstrate to program participants how each part of the program has been designed to assist them to attain their personal goals.

- **Relevancy**

Learners need to understand the reason for learning something. Instructors need to collaboratively develop learning objectives with individual participants at the beginning of the course and be prepared to revise them as the course progresses. Such objectives used as a dynamic rather than static mechanism promotes relevancy of content and instruction and ensures accountability.

- **Practicality**

The adult learning literature suggests that adults are frequently motivated to learn by the desire to achieve a specific task or acquire a skill that has a practical function in their lives. Learners need not necessarily be interested in knowledge for its own sake. Instructors need to explicitly demonstrate how the topic being taught will be useful to the learners.

- **Respect**

Instructors must acknowledge the wealth of experience that adult participants bring to the classroom. Learners must be regarded as equal partners in the educational process and be encouraged to freely express their opinions in class, one-on-one sessions and at key points during the program. Learners should also be given the opportunity to provide feedback to the instructor and see this input acted upon in revising and modifying course content and instructional strategies.

- **Self-Esteem / Confidence**

Issues of self-esteem and confidence are deeply personal and sensitive, and as such, can cause people to become defensive and embarrassed. It is therefore imperative that instructors are aware of the potential learning barriers that these issues represent and act appropriately. Being disillusioned with the education system and demoralized by the lack of constructive support can potentially prevent individuals from accessing appropriate services and claiming their right to support and assistance. The attitude of others may result in low expectations, teasing and

rejection. It is critical that instructors are sensitive to these issues and work to build confidence and promote self-esteem.

Professional Development of Literacy Practitioners

- **Previous Experience**

Previous experience, on the part of learners and instructors, of learning situations involving people with special needs represents a valuable resource. Accessing instructors that are knowledgeable about physical disabilities has been identified as beneficial for both learners and instructors involved in providing new programs.

- **Peer Instructors**

Hiring people with physical disabilities as instructors can assist in ensuring an understanding of the issues of living with a physical disability and how these might present barriers to learning. Peer instructors can also act as influential role models and assist with problem solving using their own experiences of living with a disability.

- **Need for Sensitivity Training**

Given the negative experiences articulated by many of the participants in this study, it is essential that the learning environment be equitable and inclusive. The quality and effectiveness of the learning relationship developed between the instructor and the learner are crucial in establishing the support and trust necessary to promote learning and encouragement.

- **Support for Literacy Practitioners/Instructors**

This is a difficult undertaking and it is important that those providing the service have access to appropriate support and constructive and systematic performance evaluation.

Accommodation

- **Resources, Learning Materials and Technology**

Accessing and choosing effective resources, learning materials and technology to support individual learners is of central importance. Many of the participants in this study mentioned the value of having access to a computer and appropriate software. Assistive technology has the potential of assisting the learner to interface comfortably and productively with the computer.

- **Approaches to Learning and Teaching techniques**

In order to make learning accessible, it will sometimes be necessary to creatively adapt teaching methods and media used in a more conventional educational environment (e.g. T.V., CD-ROM, DVD, Computer), and to develop instructional strategies specifically to meet individual needs.

- **Learning Styles**

Participants in this study often had a clear idea of their learning styles and what instructional strategies best suited them (e.g. reading while listening to an audiotape or singing the text they were reading). There are a number of simple learning style inventories available free on the Internet that not only provide useful insights for both learner and instructor, but also form the basis for an early discussion about objectives and learner preferences and help set the stage for a collaborative relationship between learner and instructor.

(e.g. <http://www.glencoe.com/ps/peak/selfassess/learnstyle>)

- **Opportunity to Practice**

Having the time and space in which to practice skills in order to consolidate learning can be critical in assisting the learner to succeed.

- **The Learning Environment**

It is necessary to ensure that the learning environment facilitates learning rather than inhibiting it. This includes ensuring physical comfort, limiting distracters, balancing group and individual instruction according to the learners' needs and ensuring that all learning media are accessible to the learner.

- **Architectural Modifications**

There are many features of a building and the surrounding environment, such as stairs and narrow entrances, which can make access and egress difficult for a person with a physical disability. Care should be taken to locate literacy programs in buildings and locations which conform fully to accessibility standards and requirements and which facilitate full participation for all learners.

Funding

A lack of adequate funding is clearly a barrier to the provision of literacy education and at the same time, it is a political issue as well. Given the well-established connection between limited literacy and poverty we recommend that funding is made available to assist learners with physical disabilities to take full advantage of available literacy programs. The provision of adequate and sustainable funding depends on the will and commitment of provincial and federal governments and continued lobbying by advocacy organizations and the able-bodied population.

Transportation

Many people with physical disabilities do not have their own vehicle and have problems accessing appropriate public transportation. Program developers in choosing a location need to also consider and investigate the availability of transportation and parking options for people with physical disabilities. We need to either assist the learner to get to the program or deliver the program to them in their home. This is especially important in small rural communities where there are fewer transportation options and suitable literacy programs are not as readily available.

Partnership

Collaboration between stakeholders – advocacy organizations and program providers – is needed to build partnerships, capitalize on experience and minimize overlap and redundancy in program provision. Linkages between disability groups and literacy groups must be established at the program level.

CONCLUSION

People with physical disabilities that have literacy needs are among the most marginalised and difficult to reach people in Canadian society. It is clear that having a physical disability *and* literacy needs makes it more difficult for individuals to achieve full citizenship. It is, therefore, our intention to disseminate the findings of our study through this handbook and our final report as widely as possible (e.g. to academics, people with disabilities, literacy practitioners, government policy makers, and organizations supporting people with disabilities and the media) in the hope that we can contribute to the development, promotion and adoption of best practices and guidelines for establishing accessible literacy programs for people with physical disabilities.