Social Capital and the Expanded Core Curriculum

by

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Dedication

To my parents Anne and Gerry for bringing the world to me so I would learn to bring myself to the world.

To Heather and Stephen for inspiring me to make them proud every day.

Acknowledgements

I wish to thank Dr. Christine Blais for providing unwavering support for much longer than should have been necessary, and for her gentle and patient guidance and always timely and practical advice.

To Shannon and most especially Ashley for their invaluable assistance with research and analysis, and to Jessica for being my eyes that this work might be visually presentable.

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Abstract

In 1986, the *Employment Equity Act* was passed, requiring employers to ensure appropriate representation of four groups who were underrepresented in the labour market (women, visible minorities, Aboriginal persons, and persons with disabilities). However, this legislation has limitations which affect persons with disabilities adversely. After 25 years, unemployment among persons with disabilities remains extremely high, and, when considered separately, the unemployment rate among persons living with vision loss is even higher. It has been proposed that this situation exists in large part because a traditional educational approach focused on academic subjects is insufficient to prepare visually impaired students for the transition from school to work.

Pierre Bourdieu (1973) conceptualized a social phenomenon he termed "culture capital," to explain how upper-class people distinguish themselves from those with lower socioeconomic status. Lareau and Weininger (2003) discovered that as individuals increase their knowledge of rules, norms, and appropriate behaviours, their ability to thrive improves. Hence, they developed the term "social capital" to enlarge upon Bordieu's concepts.

A model of education known as the Expanded Core Curriculum (ECC) (Lohmeier 2005) proposes that, for blind students, the inability to learn visually severely curtails learning opportunities. A program of instruction must teach skills and knowledge traditionally learned by visual observation.

The purpose of this research was to investigate the relationship between the ECC and social capital (Lareau and Weininger 2003) and to discover whether visually impaired individuals who have received an education based on the majority of the

elements from the ECC demonstrate greater ability to acquire social capital than visually impaired individuals who have received a more traditional education based on the core curriculum.

The data collected established the subjects' level of social capital; the nature of their education (Core vs. ECC); the link if any between social capital and their educational experience; and the degree of social integration including upward career mobility. Findings included:

- Those subjects who reported involvement in non-work related activities perceived a positive employment relationship, indicating high social capital.
- Education based on the ECC was limited, as demonstrated by subjects' limited career development.
- Subjects made good use of tacit knowledge, even though the education received was not based on the ECC.
- All subjects described their social relationships at work in functional rather than sociological terms. Subjects who described limited social activities with co-workers away from the workplace appeared to have limited social lives generally.

The study's conclusions are that formal instruction in soft skills and knowledge of the organization's culture, as well as orientation to workplace culture, are critical to the development of a high-quality employment relationship. Initiatives to compensate for the inability of visually impaired persons to acquire this information coincidentally would help others who experience challenges in their efforts to acquire social capital

Introduction

An examination of any social institution will reveal that as individuals within that institution increase their knowledge of rules, norms, and appropriate behaviours, their ability to survive, and even thrive, improves (Lareau and Weininger 2003). This concept has come to be known by the term social capital. As well, ability is defined not by the presence or absence of physical or mental characteristics, but rather by the way in which either the possession or lack of these characteristics is perceived. Marks (1999) suggests that, historically, the presence of disability has been perceived negatively, thus resulting in social action that has been harmful to persons with disabilities. In response, Lareau and Weininger (2003) offer ways that social capital can combat negative social action.

Vision impaired people in particular, in addition to persons with disabilities in general, experience underemployment and limited upward career mobility (Carr 1992; Raskin 1994). They are also segregated into specific job types such as clerical work, and represent only 2.5% of the labour force despite making up over 5% of the total population (Raskin 1994). The high unemployment rate in the vision impaired population becomes even more puzzling when one considers that blind and vision impaired individuals attend post-secondary institutions in numbers proportional to sighted college and university students (Kirchner and Peterson 1988; Wagner et al. 1992; Wagner and Lohmeier 2005). Yet even though they possess levels of formal education equal to or above their sighted peers, blind persons continue to experience rates of unemployment in the neighbourhood of 75% (Kirchner and Peterson 1988; Lohmeier 2005).

A model called the Expanded Core Curriculum proposes that vision impaired students receive special education; the Expanded Core Curriculum refers to a number of

subject areas beyond the so-called "3 Rs." Rather than simply providing students with the skills and knowledge individuals in society should be capable of mastering by the time they complete high school, the proponents of the Expanded Core Curriculum (hereafter referred to as the ECC) argue that visually impaired students require a curriculum which moves beyond academic subjects (Zebehazy and Whitten 1998). This altered education pattern is based on the premise that blind students cannot learn incidentally in the way their sighted peers are able to do. Learning situations need to be hands-on in order to provide a meaningful experience. Without this meaningful experience, blind students are unable to develop the skills that enable them to influence social factors. If these social factors are not well managed, the potential of blind workers to integrate themselves into the workplace is severely limited. As Lohmeier (2006) argues, an education that develops strong literacy skills primarily is insufficient to enable blind persons to transition from school to work.

Statement of the Problem

The purpose of this research, then, is to discover a relationship between the ECC (Lohmeier 2005) and social capital (Lareau and Weininger 2003), and to determine to what extent the ECC has the potential to increase social capital, and whether this heightened social capital gives rise to an increased probability of upward career mobility. In order to do this, the study will assess the following:

a. To what degree do individuals (participants in this study) possess social capital?
b. To what degree have the blind participants been educated in a manner reflective of the eight elements of the ECC?

c. If this was not the case, were the required skills and knowledge present nonetheless?
d. If required knowledge was not acquired via conventional formal learning methods, what were the means by which subjects acquired this knowledge tacitly? and
e. How well did subjects integrate socially, as well as functionally, into their places of employment, and achieve upward career mobility?

Scope of the Study

Participants were selected based on the following inclusion criteria: persons were required to be employed, visually impaired, and must have commenced their employment relationship as individuals living with vision impairment. Although 23 individuals indicated they were willing to participate, only 16 were interviewed. The interview consisted of 2 sets of questions. The first set of questions (Survey 1) was designed to elicit a "yes" or "no" response, while the second (Survey 2) was designed to engage participants in talking about their situation, circumstances and experiences in detail. In other words, both closed-ended and open-ended questions were used.

By formulating survey questions based on the observations of the researchers whose findings provided the foundation for this research hypothesis. Following Survey 1, participants were asked the questions from Survey 2. The questions in this survey were intended to elicit the details of subjects' experiences, perspectives, and opinions regarding their employment relationships. For example, a participant may have responded that he/she regularly socialized with co-workers over lunch or coffee (an indicator of high social capital according to the quantitative rating scale in Survey 1). However, in Survey

2, the same subject may have expressed frustration about co-workers engaging in social activities at work where he/she was not being included. This second answer reflects a lack of social capital.

In other words, the process recognizes that a subject's general quantitative evaluation of his/her experience may not be consistent with what he/she describes in the way of experience, even though this experience forms the basis for the quantitative evaluation. Taken together, this process may give a clearer picture of the social capital possessed by subjects both individually and collectively.

A personal note. As I reflect upon my graduate school experience, I am reminded of the profound effects that the combination of being blind from birth, and also of being a "baby boomer" have had on me, as one who has returned to school following a lengthy absence.

I realize now that I was intimidated by the prospect of going back to school and more especially the undertaking of a degree program which required me to write a thesis.

As an undergraduate student in a by-gone era, I became accustomed to submitting assignments on tape using audio cassettes, an arrangement I was extremely proud of negotiating with most of my professors. I found this to be an effective methodology since it reduced the length of time it took me to complete assignments to what I perceived more accurately reflected the time it would take a sighted student to complete the same assignment. This was important to me, since I did not want to isolate myself from other aspects of life, which I knew were just as important to my development and maturation as a person as formal education was, and which would help me become the person I wanted to portray myself to be when seeking gainful employment.

The assistance of those I asked for help in successfully completing this project made it possible for me to instantaneously transition from a time when there was no internet – and making a mistake on a type-written page meant retyping the entire page, assuming one could remember where the mistake occurred – to the current situation where, although not necessarily easy, taking responsibility for the presentation of one's own work without ever having seen a printed page is, in theory, possible.

While societal expectations dictate that people with disabilities will avail themselves of any and all tools which will enable them to conform as much as possible to the norms of the non-disabled world, I have come away from this experience believing that some "leaders" within the disability community advocate for compliance to mainstream societal norms; and, at the same time, demand concessions from the world that marginalizes them in spite of their abilities.

While there are many merits of a "pan-disability" approach to problem solving, this perspective is frequently overemphasized, to the detriment of certain disability groups which face specific and unique challenges. Sadly, this is overlooked, even by elements within the disability community itself.

That said, the assistance of my research assistants and editor were invaluable because they allowed me to complete my program much quicker than would have been the case had I had to rely on my own resources, and had I been left to my own devices. Furthermore, I would not have been able to comprehend or understand the standards to which I now know I am required to conform without this assistance.

Review of Literature

In 1986, based on the findings of Judge Rosalie Abella, the federal Progressive Conservative Government passed the *Employment Equity Act* (Raskin 1994; Lum 1995). This legislation acknowledged the existence of four groups of Canadians which are at a distinct competitive disadvantage with respect to their ability to participate fully in the labour market. The four identified groups are women, visible minorities, Aboriginal persons, and persons with disabilities (Raskin 1994; Lum 1995).

Based on the *Employment Equity Act*, employers are required to implement measures to ensure that their workforces represent current labour market demographics (Raskin 1994). For example, if current labour market information were to indicate that 22% of all plumbers in Canada were women, it follows that a company employing plumbers would be required to design and implement a strategy to increase the number of female plumbers to 22% of the total number of plumbers it employed. Government auditors could then compare the actual number of female plumbers employed with the number of female plumbers available in the labour market in order to measure the company's level of compliance. Failure to achieve these quotas could result in a complaint being lodged against the enterprise by the Human Rights Commission (Raskin 1994).

This legislation, however, has two serious limitations which severely restrict its ability to redress the imbalances resulting from the under-representation of persons with disabilities, particularly in the workplace.

First, its purview is confined to the federal civil service, federally regulated industries such as banking, broadcasting, transportation, and any company desiring to do

business with the federal government by way of supply contracts under a program known as the Federal Contractors' Program (Lum 1995; Worklife Report 1994). All other employers in Canada are governed by provincial legislation and therefore not required to comply with the regulations defined in the federal *Employment Equity Act* (Lum 1995).

Second, it is important to recognize that the *Employment Equity Act* fails to describe or specify the nature of disabilities. It does not distinguish between employees with acquired disabilities and those who become employed while disabled. Furthermore, the *Employment Equity Act* fails to take into consideration the extent to which one's disability limits one's capacity to perform all the tasks and duties associated with one's job (Raskin 1994).

According to Lum (1995) this situation exists because measures of compliance with the act and successful achievement of goals for each of the four targets are based solely on statistics. Also, the authors of the Worklife Report (1994) found that many employers use a broader definition of disability than those specified in the *Employment Equity Act*. In this way, companies "pad" their statistics to make their efforts to recruit and retain disabled workers appear more successful than is actually the case (Lum 1995; Worklife Report 1994).

Another factor that contributes to this situation is the discrepancy between the definitions of disability used by different federal government departments. For example, the Health and Activity Limitations Survey (HALS) does not consider someone who is hard of hearing, but who uses a hearing aid, to be a person with a disability (Raskin 1994). At the same time, the annual Employment Equity Report published by Human Resources and Social Development Canada, defines a disability as

> "having any persistent physical, mental, psychiatric, sensory or learning impairment; considering oneself to be or believing that an employer or a potential employer would be likely to consider one to be, disadvantaged in employment by reason of [such] impairment; and lastly, identifying oneself to an employer, or agreeing to be identified by an employer, as a person with a disability" (Raskin 1994).

As a result of varied definitions and inadequacies of the *Employment Equity Act*, persons with disabilities often do not receive the same protection from employment discrimination that is accorded the other three employment equity target groups. The little existing protection does not prevent pervasive discrimination throughout the Canadian labour market.

To compound this matter, legislation also fails to address accommodation. While the act cannot dictate better attitudes and less stereotyping in the work world, legislators may take note that, unlike members of the other employment equity target groups, persons with disabilities may require job accommodation – both functional and inclusionary. When accommodation does occur, the processes by which the necessary accommodations are identified and established may be confined to the functional tasks and duties of the position into which the person with a disability has been hired. Few employers seem to note that, although social inclusion may be difficult to achieve due to the limitations posed by one's disability, it should nevertheless be pursued in the name of maximizing productivity and a healthy employment relationship. The inability of employers to adequately integrate new employees into their organizations is identified and discussed later in this paper. To understand the impact of this failure, the concept of social capital must first be investigated.

In the 1970's, the French scholar Pierre Bourdieu conceptualized a social phenomenon he termed "culture capital." Bourdieu (1973) noted that upper-class people in France distinguished themselves from those of lower socioeconomic status by way of their knowledge of "certain highbrow" artistic disciplines. Bourdieu (1973) observed that the upper classes in France were able to own pieces of fine art and attend performances of musical and theatrical works. He noted that those with more limited financial means were unable to do likewise because they did not possess enough discretionary financial resources to do so.

Thus, when members of the upper socioeconomic classes wanted to ensure that their social activities would include only people like themselves, they used activities involving the arts as a focal point - knowing that those with lower socioeconomic status would not be able to participate because they did not have the means to do so. A lack of funds prevented them from developing either knowledge of or an appreciation for activities such as attending the opera or visiting a museum, and thus from attaining the "sophistication" of the elites (Bourdieu 1973).

Lareau and Weininger (2003) note how Bourdieu's concept of culture capital has been adopted by English scholars in the field of educational sociology. However, they argue that the prevailing definition of culture capital goes beyond Pierre Bordieu's original definition. This broader definition describes and demonstrates that within any social structure, elitism can be created when one group or individual usurps power by gathering knowledge which others do not have, and then withholding it from the other group. Lareau and Weininger (2003) concluded that an examination of any social institution will reveal that as individuals increase their knowledge of rules, norms, and

appropriate behaviours, their ability to survive and even thrive improves. This broadened concept of elitism, which resulted in varying degrees of organizational knowledge, has come to be known by the term social capital, when used to refer to this phenomenon in contexts other than the arts.

Lareau and Weininger (2003) state that "students and parents differ in their ability to comply with institutionalized standards of evaluation; or, put differently, they have different skill levels for managing institutional encounters." This means that young people living with vision loss, who are transitioning from school to work must, in addition to the challenges faced by all youth, contend with the limitations imposed upon them by society's attitudes toward their impairments. These attitudes translate into behaviours, policies, and environments which cause the impairment to be more of a disability than it need be (Marks 1999). Marks (1999) explores the way in which disability is neither natural nor essential, but rather is socially produced: "disability draws upon social constructionism which suggests that the ways in which we commonly understand the world, and the categories and concepts we use, are historically and culturally specific."

Marks' social constructionism suggests that the way we perceive disability is rooted in our experiences both direct and vicarious, and that these experiences are filtered through a lens which is tempered by our cultural background. All personal qualities, collective and individual, can be either positive or negative, or both at the same time – depending on the cultural and experiential context through which we view them. In other words, like nuclear energy, our perceptions can result in either help or harm. The

important thing to remember is that since knowledge and social action are constantly combined, the results they produce will produce more of the same.

Ability, then, is defined not by the presence or absence of physical or mental characteristics, but rather by the way in which either the possession or lack of these characteristics is perceived. Marks (1999) suggests that historically, the presence of disability has been perceived negatively, thus resulting in social action that has been harmful to persons with disabilities. In response, Lareau and Weininger (2003) offer ways that social capital can combat negative social action.

Even though Lareau and Weininger (2003) refer specifically to students and parents operating within a school environment, it is reasonable to assume that their conclusions are applicable to other formal social structures, including the workplace. The field of human resources has come to recognize the importance of socialization and culture simulation (Towers Perrin 2007). The process by which new employees become familiar with, and integrated into, the culture of their workplace is known as "onboarding." An effective onboarding program seeks to align a new employee's talents with the employer's business objectives by "acquiring, accommodating, assimilating, and accelerating new team members, whether they come from outside or inside the organization" (Bradt and Vonnegut 2009). Onboarding should quickly and effectively reinforce both the employee's decision to join the new employer and the company's decision to hire him or her (Reese 2005). Onboarding is the entire process of bonding with the worker from the time an employee is first hired to his or her first anniversary of employment (The Herman Group 2004). Put differently, when new employees are onboarded, they are, in effect, acquiring social capital.

The quality of the orientation process (onboarding) is recognized as being critical to the development of a healthy employee/employer relationship. A negative experience resulting from a poor employee orientation has many negative consequences for employees; whether they are disabled or not, new employees may fail to become engaged. According to a definition put forward by Towers Perrin (2007), engagement is measured by the extent to which employees will do more than is expected or called for according to their job description. Engagement has three components: head (rational), hands (willingness), and heart (emotional). The "rational" component refers to how employees indentify and connect with the goals and values of their organization. The "willingness" refers to the amount of extra effort employees will put out to help their organization be successful. The "emotional" component describes how employees bond with their employer. When this definition of engagement (as it has been conceptualized for the purposes of this study) is applied to the general labour force, it reinforces statistics which suggest that less than 21% of employees can be found to be fully engaged on the job (Towers Perrin 2007).

Furthermore, Stephen Covey (2004) published results of a Harris Interactive study which revealed that 37% of employees had a clear understanding of what their organization was trying to achieve, 15% felt that their organization fully enabled them to execute key goals, 20% had a clear "line of sight" between their tasks and their organization's goals, and 17% felt their organization fostered open communication that is respectful of differing opinions. In contract to these satisfied few, 59% were been left to their own devices during their first day at work, and 26% of respondents voluntarily left

their jobs within one month because they were treated poorly by their new employers (Towers Perrin 2007).

After twenty-five years, opinions regarding the success of the federal *Employment Equity Act* are mixed and highly subjective based on the perspective of the source. Nonetheless, it is difficult to argue with statistics which clearly demonstrate that persons with disabilities continue to experience rates of unemployment which are much higher than the overall unemployment rate. The most recent data available from Statistics Canada indicates that as of 2006 only 35% of Canadians living with vision loss, who were of working age, were employed (personal communication CNIB 2011).

Vision impaired people in particular, in addition to persons with disabilities in general, experience underemployment and limited upward career mobility (Carr 1992; Raskin 1994). They are also segregated into specific job types such as clerical work, and represent only 2.5% of the labour force despite making up over 5% of the total population (Raskin 1994).

The high unemployment rate in the vision impaired population becomes even more puzzling when one considers that blind and vision impaired individuals attend post-secondary institutions in numbers proportional to sighted college and university students (Kirchner and Peterson 1988; Wagner et al. 1992; Wagner and Lohmeier 2005). Yet even though they possess levels of formal education equal to or above their sighted peers, blind persons continue to experience rates of unemployment in the neighbourhood of 75% (Kirchner and Peterson 1988; Lohmeier 2005).

While these aforementioned issues are both significant and important in their own right, their treatment here is intended to serve as a foundation upon which to build the

rationale for an attempt at examining the research question hypothesized in this proposal. A model called the Expanded Core Curriculum (hereafter referred to as the ECC) proposes that vision impaired students receive special education; the ECC refers to a number of subject areas beyond the so-called "3 Rs." Rather than simply providing students with the skills and knowledge individuals in society should be capable of mastering by the time they complete high school, the ECC's proponents argue that visually impaired students require a curriculum which moves beyond academic subjects (Zebehazy and Whitten 1998).

Historically, strategies and methods used in the education of visually impaired students have not differed significantly from the approaches used with sighted students. From the mid-19th through the mid-20th century, blind students received an education which was delivered in a segregated environment and which emphasized, almost exclusively, writing and literacy skills (Lohmeier, Blankenship, and Hatlen 2008). At the same time, the need to provide formal instruction to blind students regarding personal grooming, for example, is documented as far back as 1891. The need for formal training pertaining to social interaction was identified as early as 1929 and again in 1948 (Hatlen 1996). With the advent of mainstreaming of students with disabilities which saw these students integrated with non-disabled students, it became apparent that perhaps a curriculum which focused primarily on academics was insufficient to meet the needs of students living with vision loss (Lohmeier, Blankenship, and Hatlen 2008).

Therefore, in addition to the traditional elements whose learning outcomes promote literacy for those with visual impairment, the ECC also includes: compensatory academics or access skills; social interaction skills; recreation and leisure skills,

independent living skills; orientation and mobility skills; assistive technology and technology skills; career education; and sensory efficiency (Hatlen 1996; Lohmeier, Blankenship and Hatlen 2008).

This altered education pattern is based on the premise that blind students cannot learn incidentally in the way their sighted peers are able to do. Learning situations need to be hands-on in order to provide a meaningful experience. Without this meaningful experience, blind students are unable to develop the skills that enable them to influence social factors. If these social factors are not well managed, the potential of blind workers to integrate themselves into the workplace is severely limited. As Lohmeier (2006) argues, an education that develops strong literacy skills primarily is insufficient to enable blind persons to transition from school to work.

What follows is a description of the ECC. The ECC consists of eight components, each intended to achieve learning outcomes which give students specific life skills. The ECC recognizes that since these students cannot see, or have limited vision, it is likely that if left to chance, certain social capital-building skills will not be learned. The ECC recognizes that these skills are necessary for successful integration into society, and can culminate in blind and visually impaired individuals achieving social inclusion to the maximum degree possible.

Compensatory or Functional Academic Skills, Including Communication Modes.

The skills relevant to this element of the ECC can be categorized as one of two types: functional or compensatory. Compensatory skills are those needed to achieve the desired learning outcomes with respect to each and every component of the ECC, while

functional skills are those that a student with a disability acquires in order to maximize his/her independence with respect to a particular task or activity. A student who has strong compensatory skills will most often access learning in a manner equal to his/her sighted fellow students. Specific skills include concept development, spatial understanding, study and organizational skills, and speaking and listening skills. This skill set also includes the communication skills which are necessary to achieve successful mastery of the other elements of the ECC. These skills are broadly defined and may vary between individuals depending on the nature and degree of disability. Individuals may discover that while Braille may be highly effective in one situation, synthetic speech may be equally as effective in another where Braille may prove extremely awkward and cumbersome (Hatlen 1996).

Orientation and Mobility. As with the ability to communicate, the ability to move about freely is considered to have the greatest potential to limit the independence of blind individuals. These skills can be as basic as body and spatial awareness and as complex as using public transportation with the assistance of a guide dog and global positioning system.

The teaching of these skills is a highly refined and specialized discipline which affords visually impaired students the ability to travel as freely and independently as possible and to learn about their environment first-hand. These skills fulfill a fundamental need and basic human right (Hatlen 1996).

Social Interaction Skills. Social skills are a prime example of a skill set which is acquired incidentally mainly through experience resulting from visual learning. As is the case with the aforementioned ECC components, these skills must be formally taught in

recognition of the learner's inability to acquire this knowledge in the same way as his/her sighted peers. The sighted student learns because he/she has the ability to observe the reactions of others and to self-determine whether behaviour is appropriate based on their reactions. Students with visual impairment need this instruction because it can mean the difference between isolation and an adult life abundant with satisfaction and fulfillment (Hatlen 1996).

The importance of social interaction skills is heightened further by their role in the blind person's ability to engage in self-advocacy. An awareness of appropriate versus inappropriate physical gestures, as well as social concepts, is essential to the practice of effective self- advocacy (Lohmeier, Blankenship and Hatlen 2008).

Independent Living Skills. Skills in this area pertain to issues relating to personal grooming, food preparation, time and money management, and organizational skills. Inclusion in the ECC is essential because, while some of these skills are introduced as content within the context of other subject areas, their presence can be short-lived and inconsistent. Without consistency, the skills as taught are inadequate to maximize self-sufficiency of the visually impaired learner. Students need to acquire these experiences by way of hands-on, laboratory-like learning opportunities which require a significant time commitment and numerous repetitions for the best results to be achieved (Hatlen 1996).

Career Education. Career education is another area where the inability to observe renders certain knowledge (again, most often acquired via vicarious experience) inaccessible. For this reason, career education provided to all students must be supplemented with formal, highly systematically organized opportunities for blind

students to meet and get to know people from as wide a range of careers as possible (Hatlen 1996).

Assistive Technology and Technology. Technology, while not exactly a core subject, is a component of the ECC since knowledge of its use significantly levels the playing field for those with a visual disability. The ability to communicate with others and to access ever-increasing amounts of information in a timely manner vastly expands the visually impaired person's world and greatly enhances his/her ability to be perceived as equally capable, competent and knowledgeable about the world. This allows that individual's participation in society to become more robust (Hatlen 1996).

Visual Efficiency. This ECC component pertains to individuals who have some residual vision. What those who are not totally blind are able to see varies greatly depending upon the nature and extent of individual eye conditions. Nevertheless, making the most of any remaining sight is something to which those who possess it are entitled; doing so will only serve to enable individuals to maximize their potential (Hatlen 1996).

Learning Outcomes of the ECC. In the event that all of the skills mentioned above have been taught and mastered, the end result is a person who (although visually impaired from birth or a very early age) is nonetheless integrated into the social, recreational, and vocational fabric of the community (Hatlen 1996). The opportunity to socialize by participating in activities such as enjoyment of the arts, sports, cuisine and physical activity, are the net result of achieving the learning outcomes associated with the ECC (Hatlen 1996). Such individuals, it would seem, would possess high social capital and be capable of not merely participating but thriving in the work world.

Based on the results of the aforementioned Harris Interactive study (Covey 2004), many employees felt that the organizations into which they were hired did not provide them with a positive onboarding experience. When this is considered in addition to some of the obstacles to learning described above, it is reasonable to assume that a negative onboarding experience may strongly impact a blind individual's employment relationship in a detrimental way. Moreover, in a negative work-world situation, a marginalized individual without the means to acquire social capital could nevertheless be held accountable for inappropriate behaviour.

One example could be the failure to dress in accordance with company expectations. While most other employees acquire information about how to dress by way of independent visual observation, the blind worker must have this information communicated to him/her. Non-disabled colleagues may not be aware that they can assist a newly hired blind individual with the acquisition of this knowledge for two reasons: firstly, able-bodied workers may feel they are invading personal space if they approach the disabled person regarding deviant behaviour. Secondly, able-bodied people may assume that the standards to which employees are expected to adhere are commonly found throughout society, and thus that knowledge of them is commonplace.

The blind person may be often left to his/her own devices. He/she must rely on the kindness, generosity, and candour of colleagues who might be willing to volunteer advice that could assist the blind individual in establishing his/her place in the organization, not only functionally but socially. The blind person must attempt to seek out, often haphazardly, persons whom he/she can trust to provide answers to questions intended to elicit information about informal social and behavioural protocols. Beyond

this, the blind person must still possess enough life experience and knowledge to heighten his/her ability to anticipate potential trouble spots in workplace social interactions and relationships, so as to acquire information that will allow the disabled worker to avoid transgressions of any social or sub-cultural codes of conduct. This is important because people often take judgements they make in one context or situation and generalize them to apply it to other situations.

For example, a blind person who wears a sweatshirt with an offensive logo to work (believing this to be appropriate in a workplace that has a "business casual" dress code) may be considered to have violated that dress code. The individual may never be told that he/she has violated the dress code for a number of reasons. There are those who might think it inappropriate to say anything lest they hurt the blind person's feelings. Others might simply think the person doesn't know any better and lower their expectations for behaviour relative to the standards to which everyone else in the organization must subscribe.

Irrespective of their reasons, failure to provide honest feedback deprives the blind worker of the opportunity to demonstrate that he/she is aware of the dress code and is capable of adhering to it. While there may never be a direct reference to such an incident like the one described above, such infractions may be remembered and can create a lens through which every aspect of the blind person's conduct may be viewed by both peers and superiors. In short, characteristics of the blind person's behaviour that have absolutely nothing to do with job performance are nonetheless factored into evaluations of that very performance.

The purpose of this research, then, is to discover a relationship between the ECC (Lohmeier 2005) and social capital (Lareau and Weininger 2003), and to determine to what extent the ECC has the potential to increase social capital, and whether this heightened social capital gives rise to an increased probability of upward career mobility. In order to do this, the study will assess the following:

a. To what degree do individuals (participants in this study) possess social capital?
b. To what degree have the blind participants been educated in a manner reflective of the eight elements of the ECC?
c. If this was not the case, were the required skills and knowledge present nonetheless?
d. If required knowledge was not acquired via conventional formal learning methods, what were the means by which subjects acquired this knowledge tacitly?
e. How well did subjects integrate socially, as well as functionally, into their places of employment, and achieve upward career mobility?

Methodology

Participants were recruited by posting invitations on the mailing lists of the following organizations: NEADSL (National Educational Association of Disabled Students), Advocates for Equality of Blind Canadians, The National Federation of the Blind, and the American Council of the Blind in the United States. In addition, information about the study was sent to the Canadian National Institute for the Blind for service providers to share with consumers.

Participants self-identified by replying to the e-mail invitation (see Appendix D). When a response expressing interest in the study was received, the researcher provided the interested party with an electronic copy of the consent form (see Appendix C). Prospective subjects were required to respond with another e-mail indicating they had read the consent form and were still willing to participate in the research.

When contacted for the interview, participants had the consent form read to them a second time and were then asked directly to confirm their willingness to participate in the study. Throughout the entire data-gathering process, subjects were routinely reminded they could cease their participation in the research at any time.

Participants were selected based on the following inclusion criteria: persons were required to be employed, visually impaired, and must have commenced their employment relationship as individuals living with vision impairment. It was decided to forego seeking sighted subjects matched for employment and level of education as the response to the invitation to participate in the study from visually impaired subjects was much stronger than expected. As well, since there were no volunteers from the sighted community the researcher would have had to recruit participants, which also had the

potential to bias the data.

Although 23 individuals indicated they were willing to participate, only 16 were interviewed. Contacting the remainder of those who expressed interest proved to be difficult and no more expressions of interest were received. Thus, it was decided not to delay the analysis of the data which had been collected in the interest of acquiring more subjects. In addition, the number of male subjects from whom data had been collected was equal to the number of female subjects. Table 1 describes the participants with respect to gender balance, diversity with respect to chronological age and degree of career development.

Table 1: Demographic Information of Participants

Pseudonym	Age (yrs)	Gender	Degree of Career Development (full, partial, none)	Level of Education
1 Shirley	58.2	Female	Full	4
2 Brianna	32.0	Female	Full	4
3 Terry	53.6	Male	Full	3.5
4 Lance	42.2	Male	Full	3.5
5 Rob	65.8	Male	Full	5
6 Stephen	47.4	Male	Full	3.5
7 Alan	57.7	Male	Full	3.5
8 Jeff	57.1	Male	Full	5
9 Keith	53.3	Male	Full	3.5
10 Mahadeo	31.5	Male	Full	5
11 Nancy	47.6	Female	Full	3.5
12 Donna	51.1	Female	Full	5
13 Patti	50.5	Female	Full	3.5
14 Deana	29.0	Female	Full	5
15 Jennifer	33.8	Female	Full	3
16 Naomi	53.8	Female	Full	3.5

Interviews were conducted at a time and date mutually agreed upon by the researcher and each participant. At the set time, the researcher contacted the participant by phone. The consent form was read to the subject and direct verbal consent was obtained before proceeding. Participants were advised they were now being placed on speaker phone, and that their conversation with the researcher would be recorded. All interviews were recorded using a speaker phone and digital audio recorder so that they could be transcribed verbatim (Humanware Victor Reader Version 3.3.7 Stream Model #303.)

The interview consisted of 2 sets of questions (see Appendices A and B). The first set of questions (Survey 1) was designed to elicit a "yes" or "no" response, while the second (Survey 2) was designed to engage participants in talking about their situation, circumstances and experiences in detail. In other words, both closed-ended and open-ended questions were used.

By formulating survey questions based on the observations of the researchers whose findings provided the foundation for this research hypothesis, the researcher attempted to address said hypothesis by putting questions to participants to establish:

a. To what degree blind participants possessed social capital;
b. To what degree the blind participants were educated in a manner reflective of the eight elements of the ECC;
c. If this was not the case, whether the required skills and knowledge were present nonetheless;
d. If knowledge was not acquired via conventional formal learning methods, to discover the means by which subjects acquired this knowledge tacitly; and

e. To assess how well subjects integrated socially as well as functionally into their places of employment; and achieve upward career mobility.

Since two surveys were created to investigate these queries, responses to the closed-ended questions could be compared with those for the open-ended questions to measure the congruency between participants' responses when commenting about their experiences and perspectives generally, versus how they answered questions requiring more detail. The goal of this strategy was to improve the richness of the qualitative data by comparing it the data generated by a quantitative instrument to measure the same experiences and perspectives.

For the purpose of the data analysis, the answers to Questions 1 and 2 in Survey 2 were amalgamated, as were answers to Questions 3 and 4 (see Appendix B). This was done because while it was recognized that Questions 1 and 3 asked subjects to comment from an idealistic perspective, Questions 2 and 4 asked participants to evaluate their actual experiences relative to the ideal concepts they articulated when answering Questions 1 and 3.

The length of interviews ranged from a minimum of 11 minutes, 38 seconds to 2 hours, 32 minutes. This discrepancy can be attributed to variation in the depth and breadth of experience from one participant to another, as well as varying degrees of self-expression and a willingness to share information. In many instances, interviews were longer when the researcher asked additional probing questions to clarify points raised by subjects in response to the questions.

The portion of the interview during which subjects were asked the questions from the Survey 1 was not recorded using audio recording equipment. Rather, a research

assistant was present and recorded scores relative to the pre-determined rating scale which corresponded with the answers provided by each subject. These scores were recorded directly onto data sheets immediately. The answers to the closed-ended questions from Survey 1 were coded numerically in order to establish an indication of the participant's level of social capital. Factors identified by the review of literature as important determinants were used to develop this rating scale. The rating scale associated numeric values with each possible answer for all questions in Survey 1. Possible scores for each answer varied depending on the number of possible answers for a specific survey question.

For example, the highest score for Survey 1, Question 1, “have you been visually impaired all your life?” was two since the only two possible answers were either “yes” or “no”. For Question 2, however, “what is the highest level of education you have attained?” possible answers ranged from “did not finish high school” to “graduate school”. The total number of possible answers was five. Therefore an individual who reported being in graduate school would receive a score of five for his/her answer to that question.

The scores for all answers were totaled. Subjects whose total score was under 17 out of a possible 35 points were considered to have low social capital, while those receiving a score of 21 or higher were considered to have high social capital. A gap of four points in the range of the scores was left in order to clearly delineate the definitions of low versus high social capital.

Following Survey 1, participants were asked the questions from Survey 2. The questions in this survey were intended to elicit the details of subjects' experiences,

perspectives, and opinions regarding their employment relationships. For example, a participant may have responded that he/she regularly socialized with co-workers regularly over lunch or coffee (an indicator of high social capital according to the quantitative rating scale in Survey 1). However, in Survey 2, the same subject may have expressed frustration about co-workers engaging in social activities at work where he/she was not being included. This second answer reflects a lack of social capital.

In other words, the process recognizes that a subject's general quantitative evaluation of his/her experience may not be consistent with what he/she describes in the way of experience, even though this experience forms the basis for the quantitative evaluation. Taken together, this process may give a clearer picture of the social capital.

Once all the questions had been recorded, participants were advised the interview was complete and asked if they had any questions. The participants were then thanked and the call was ended.

As noted, the Humanware Victor Reader Stream was used to record the interviews. Following the interview the Humanware Victor Reader Stream was connected to a splitter which was then connected to headphones equipped with a microphone. This was then interfaced with Microsoft Windows on a laptop computer. The recording of each interview was played back through the headphones and using the attached microphone, and the researcher transcribed each interview verbatim. This was accomplished using a software combination of JAWS (Job Access with Speech) for Windows (JFW), version 10.0, Dragon Naturally Speaking version 10.1, and J-say Pro Version 7.0.

The transcriptions were then printed out for analysis and all data sheets and audio

recordings were kept locked safe at the researcher's home. There were no specific references to participants. In situations where responses are quoted directly, the quote is attributed to a subject number.

The data was analyzed with the assistance of a research assistant. Transcripts were dissected by the research using scissors to cut the printouts in order to divide each interview into a separate transcript for each survey question. The research assistant then grouped together subjects' responses to each question from Survey 2 according to question number. This made it possible for all responses to be examined for the identification of common concepts, themes, and experiences.

Question by question, responses were read aloud by the research assistant to the researcher who recorded the concepts, themes, and experiences common to the majority of the responses. Once identified, the concepts found to be common across all interviews were defined. The following list describes the characteristics of the study group.

- 11 people out of 16 had a life-long visual impairment.
- All subjects attended post-secondary education, obtaining a minimum of one undergraduate degree. 50% of subjects had completed at least some graduate school.
- The subject pool was split between those who had less than five years of service with their current employers while the remainder had ten years or more.
- With the exception of one subject, all participants were employed full-time.

- By far the majority of subjects reported high engagement, believing their work days to be full of work-related activities.
- The majority of subjects also indicated use of educational skills in their jobs. Only three subjects reported not using their education.
- Slightly less than 50% of all subjects reported they had not received a promotion at their current place of work.
- More than 50% of all subjects described being on committees at work, which was an indicator of social engagement.
- Another measure of social engagement was the planning of social activities for the workplace; 75 % of all subjects stated they were involved in planning social activities.
- All 16 subjects said they had friends at work.
- In spite of having friends, one subject described being lonely at work.
- Less than 50% of all subjects indicated that they socialized regularly with co-workers over coffee or lunch.
- In a similar vein, less than 50% of the subjects described socializing with their coworkers away from work.
- All but two subjects perceived themselves as accepted by coworkers personally as well as professionally.
- Moreover, only three of 16 subjects felt that they didn't "fit in" at work
- All but three subjects felt valued by their employer. Only two participant said their opinions were not appreciated.

Those responses which were unique or shared by only a few participants were noted for future reference and used as illustrations to document exceptions to trends, or as examples of an exceptional challenge or success.

The interview transcripts were then re-examined in order to evaluate the quality of subjects' experiences for the concepts to which all participants referred when answering specific survey questions.

Using a five point Likert scale, the experience of each subject was assigned a value from one to five where one represented an extremely negative experience and five represented a very positive experience.

The quantitative and qualitative data were linked based on the common elements in questions which asked for the same information. For example, subjects' responses to Question 1 from Survey 1 ("How do you fit in at work?") were linked with Question 2 from Survey 2 ("How would you describe your employment relationship?").

The qualitative data was examined for its consistency with the answers to quantitative questions in the last survey which asked for the same information, and illustrated with anonymous quotes from subjects. The observations were explained within the context of the relevant elements from the ECC.

The researcher noted that some of the authors cited in the literature review identified certain traits among their subjects with respect to particular forms of knowledge and skill sets. These authors observed that the presence or absence of these traits was likely dependent on the availability of specific learning opportunities with clearly defined learning outcomes.

Results

This study hypothesized that visually impaired persons are likely to experience more difficulty achieving upward career mobility than those found in the workforce at large (Carr 1992; Raskin 1994). The study further hypothesized that this difficulty in achieving upward career mobility may be attributable to a lack of social capital (Lareau and Weininger 2003). Furthermore, this lack of social capital may be the result of blind students receiving an education which only emphasizes traditional academic subjects in the core curriculum (Hatlen 1996). Conversely, the ECC is an innovative approach which takes into account the inability of blind students to learn vicariously or incidentally. Blind students who are instructed in the core curriculum subjects alone may fail to acquire knowledge relative to concepts including (but not limited to) areas such as emotional intelligence, time management, various social norms, and the ability to care for and manage oneself independently (Lohmeier 2005).

It was, therefore, for the purposes of this study necessary to determine:

a. To what degree blind participants possessed social capital;
b. To what degree blind participants had been educated in a manner reflective of the eight elements of the ECC;
c. If this was not the case, whether the required skills and knowledge were present nonetheless;
d. If knowledge was not acquired via conventional formal learning methods, by what means did subjects acquire knowledge tacitly; and
e. How well subjects were integrated socially, as well as functionally, into their places of employment; and achieving upward career mobility.

Both quantitative and qualitative data were obtained using one survey (Survey 1) containing short answer questions which generally require a yes/no answer; and a second survey (Survey 2) containing questions designed to elicit a longer answer and thus a more qualitative response.

As a result, the data obtained could be categorized in one of four ways. The data established:

1. The subjects' level of social capital
2. The nature of their education (Core vs. ECC)
3. The link if any between social capital and their educational experience, and
4. The degree of social integration including upward career mobility.

The relationships between the questions in Survey 1 and Survey 2 had been established in the Literature Review, as indicated by the references at the end of the survey questions.

Subjects' answers from Survey 1 were compared with their answers to the corresponding questions from Survey 2. The number of positive responses, and the number of negative responses to corresponding questions from each survey, were recorded and compared. Exceptions were identified and noted. The following table (Table 2) illustrates the analysis of the qualitative date.

Table 2: Qualitative Results Analysis

		Survey I		Survey II	
number	topic	Yes	no	discussed in question	
1	current employment	na na	na na	4	quote for 1-2 yrs = 7 people quote for 5-6 yrs = 7
2	hrs / week			7	quote for 20-29 hrs/wk = 1 quote for 40+ hrs /wk = 8
3	busy all day	13	3	2,2,3,5	quotes
4	use your skills	13	3	9,10	quotes
5	promotions	7	9	7	
6	committees	9	7	2,8,11	
7	social act	11	5	2,3,4	
8	friends	16	0	2,3,4,5	
9	lonely	15	1	2,3,5,8	
10	coffee or lunch	7	9	2,5	
11	socialize	7.5	8.5	11	
12	accepted	13.5	2.5	2,3,4,5	
13	fit in	13.5	2.5	1,2	
14	appreciated	13	3	2,3,7	
15	ideas /opinions	14	2	2,3	
Social capital is out of 35 from Question 1 to 15					

Subject	Social Capital	Soc Cap %	Educ Level		Social Capital	Educ Level
1	24	68.6	5	24 x 100/35 = 68.57	24	5
2	25.5	72.9	4		25.5	4
3	29	82.9	5		29	5
4	29	82.9	5		29	5
5	29.5	84.3	5		29.5	5
6	23	65.7	3		23	3
7	28		3.5		28	3.5
8	26		3.5		26	3.5
9	28		5		28	5
10	24		3.5		24	3.5
11	26		3.5		26	3.5
12	27		3.5		27	3.5
13	26		5		26	5
14	25		4		25	4
15	27		3.5		27	3.5
16	21	60.0	3.5		21	3.5

interpretation - all have high social capital

Table 2 served as a template which facilitated the identification of illustrative quotes from various subjects. The following quotes provide examples of both consistencies and inconsistencies between subjects and also between individual subjects' responses to questions from the first survey versus those from the second survey. Consistency, therefore, is defined firstly as similarity between a subject's answer to a question from Survey 1 and his/her answer to a question from Survey 2 which are probing the same information, and secondly by the number of subjects whose answers to questions in the first survey were consistent with those to questions from the second survey. These comparisons enabled the researcher to compare the degree of social capital possessed by one subject with that of another; establish whether subjects received an education based on the core curriculum vs. ECC models; determine the link if any between social capital and educational experience, and assess the extent to which subjects were socially integrated including their upward career mobility, both individually and as a group.

To what degree did individuals possess social capital?

For the purposes of this study, the presence of social capital was measured primarily by looking at subjects' involvement in workplace activities which were not directly related to actual work activities.

Interestingly, in spite of the challenges articulated with respect to fitting in socially at work, 11 of the 16 subjects who participated in the study reported they had helped to plan and organize a social activity for the workplace. In all cases, there was a consistent relationship between having participated in the planning and organization of a

social activity and the perception of one's place in the organization socially, and his/her perception of the employment relationship.

Subject 14 illustrates an example of one who participated in organizing a social activity in the workplace and whose perception of the employment relationship was positive:

> "I would have to say being accepted and recognized by my peers. Knowing that the work and the responsibilities I have at work are such that—you know, they're not make- work projects. They are mainstream. I think I fit in 100%" (Subject 14).

An example of someone whose perceptions were negative and who did not participate in planning social activities was Subject 3, who said,

> "I guess to me it means being accepted by my colleagues and you know, being appreciated basically for doing the same work that they do at a similar level in terms of, you know, in terms of quality. I think it's important that your opinions are sought and accepted by colleagues. In the type of work I do, we work in teams all the time. So it's very important that we be able to work out how we're going to handle things on a given day. I would say I fit in well. I mean, I certainly offer opinions about how things should be done when we're organizing our work. I feel especially appreciated when sometimes I'm asked by newer people who are in training about how things are done and I can offer things to help them" (Subject 3).

It should be noted that while this individual is not socially active, he does not describe fitting in at work in ways that have nothing to do with the tasks and responsibilities of his job.

Both positive and negative responses would seem to reflect under developed social awareness within the context of the ECC. Subjects did not discuss their social experience in the workplace in terms that did not directly relate to the actual work of the

organization. This might suggest some degree of social isolation that is not perceived by the subjects themselves.

On the other hand, all subjects reported having friends at work in Survey 1, which asked this directly. They also described fitting in at work in a manner consistent with reporting having friends at work. For example Subject 6, when asked about fitting in at work, stated:

> "I think fitting in at work means being accepted as a normal component of the work environment both socially and professionally. I think I fit in at work. If I had to give myself a grade, I'd say 9 out of 10. There are things I don't do obviously—you know I don't do the golf tournaments and I don't do—you know, some of the things, but I think generally speaking, I fit in rather well" (Subject 6).

This seems fairly typical of employment relationships generally.

Did subjects receive an education based on the core curriculum or ECC model?

When considered within the context of the ECC, it would seem that these subjects could be categorized as having either limited career education, or none at all. The comments of those who responded positively reflect good use of knowledge and experience, while at the same time demonstrating that this knowledge is limited. They acknowledge that they had knowledge, and that this knowledge enabled them to have control over managing their careers.

Those, on the other hand, who described a situation in which life just seemed to happen, did not appear to have had any formally guided career exploration opportunities. Such opportunities, according to Hatlen (1996) and Lohmeier, Blankenship, and Hatlen (2008) are essential to the acquisition of first-hand knowledge which the blind person can then accurately integrate with his/her identity to form accurate true and meaningful career aspirations.

It would appear that no subjects in this study received formal career education as outlined in the ECC model. Subjects who appear to have acquired this knowledge seemed to be those who possessed a high degree of self-determination combined with the presence of a pragmatic approach to problem solving.

Subject 1, when describing how he decided on a career goal, commented:

> "I know a lot of people with disabilities sort of hang out in careers that help them. That was never really my interest because I never really had careers that helped me all that much. If I was going to gravitate to anything from that perspective I should have gravitated toward ophthalmology, because I had a real bad paediatric ophthalmologist who didn't understand children and that just drove me nuts. And I discovered science when I was five or six years old. And in discovering science I was grossly attracted to it. And to me it was like just the coolest thing: the opportunity to figure out what was going on in the world around you; even if half the time you couldn't see it. And the fact that you didn't actually even need to see it in order to figure it out. That was even cooler. And so ever since I was a kid I wanted to do science. And I mean, granted, that got refined a little bit. Like I said ,I went from being a high school teacher wannabe to being a faculty wannabe, going from astrophysics to biology and genetics and most of that was just trying things that would fit properly. And I ended up where I am because, you know, although I'm good at math, good at physics and good at chemistry, ironically enough, I'm not good at computer science and you need the computer science in order to be the astrophysicist, and biology is a more narrative kind of science. It still makes use of my talents while at the same time giving me something rather fulfilling to pursue and chew my teeth on" (Subject 1).

This is in stark contrast with the response of Subject 6:

> "Well that was -- I never really had you know a specific absolute definite idea in my head. I just kind of went along with whatever came my way and looking back

> you know you think should I have tried harder, should I have tried something else? But I'm where I'm at" (Subject 6).

> This same subject when asked to describe her original career goal also said, "That's an interesting question (laugh). I got a degree in public relations, but I wasn't really sure what I wanted to do with that at the time - and I kind of was directed into phone customer service and that's where I ended up" (Subject 6).

If not acquired by way of the ECC, were the required skills and knowledge present nonetheless?

Along with career development, the social interaction skills component of the ECC was of both major relevance and importance to the investigation of the relationship the study sought to discover.

The next measure asked subjects to indicate whether they went for coffee or lunch with co-workers regularly, and then asked them to describe their support system in the work place. The group was split almost in half with 7 of 16 subjects reporting regularly socializing during the work day over coffee or lunch.

For example, of those who indicated regularly socializing at coffee or lunch with co-workers, Subject 2 states:

> "I think I'm in a pretty good situation because I think we work together and we're all there to help and support each other. When were confronted with things that aren't—things we don't necessarily agree with, we all have each other to talk with and we all support each other. When somebody needs help, somebody else jumps in and I feel like I can jump in there and help just the same as everybody else. There is some support from direct supervisors as well as co-workers but not higher" (Subject 2).

However, of those who said they did not do so, there was a tendency to describe support in the workplace in functional rather than psychosocial terms. To illustrate the apparent unawareness of a social, as well as a functional, support system, Subject 3 stated:

> "As I said, we do a lot of work in teams. My colleagues are certainly a big help to me. We get documents—actually, maybe I should explain this a little bit. Dictionaries have their place in what we do as interpreters, but the more immediate source of the information we need is documents provided by the clients at meetings. So one of the really big things my colleagues will do for me they will go through the print documents if I haven't had a chance to see them because I got them by email or whatever. They're very good at telling me about the technical expressions I might not know about. We have several different types of systems we use at work and I've never had a problem with a colleague not saying he wouldn't show me, for example, which button corresponds to the language we're interpreting into. There are, just off the top of my head, 5 or 6 different systems that we use. I've had colleagues who were sometimes able to go to the office to pick things up for me when it wasn't convenient for me to go and that sort of thing. But you know, we work in teams and the biggest support system is the sort of mutual help we all give each other" (Subject 3).

Subjects consistently described their support system at work in terms of their job function and its relationship to the job functions of others. Personal support in the workplace was not discussed, indicating that perhaps subjects generally did not form close informal social relationships. This possibly emphasizes a need for formal social skills training as prescribed by the ECC.

If knowledge was not acquired via conventional formal learning methods, what was the means by which subjects acquired this knowledge tacitly?

As emphasized later, it is important to note that since the ECC was only formally conceptualized in 1996, none of the subjects who participated in this study were of school age subsequent to the ECC's development and apparent wide-spread adoption, particularly in the United States. Responses to the following questions both illustrate and exemplify that despite the lack of a formal ECC model, subjects generally were able to acquire the knowledge associated with the formal learning outcomes of the ECC. This was measured by examining subjects' non-work related social activities. When asked if they socialized with co-workers outside work, seven subjects responded they did. The remainder indicated they did not. In Survey 1, subjects were simply asked if they socialized with any of the people they worked with outside work. In Survey 2, subjects were asked to describe their social lives. All subjects answered consistently in both surveys.

Among those who indicated they socialized with their co-workers, their descriptions reflected a social life involving activities with others. Subject 5 described her social life this way: "I guess it's pretty much like anybody else's. I go to socials with my friends or just hang out and go to movies - the same as anybody else, really" (Subject 5). Those who didn't socialize with co-workers didn't describe a social life in which they carried on activities with others at all, and identified their lack of vision as a challenge which limited their potential to be social.

As Subject 10 put it:

> "I would say it's good, but it's different. It's good in that I know people - you know, we entertain, we go places, we do things … it's different because no matter how much you want to do things there are certain barriers that are just not *overcomeable*. Barriers - for example, being able to pick up and go where you

> want when you want because you cannot drive a vehicle, or because you don't have friends who can drive a vehicle and they may not be able to drive a vehicle maybe not because they are blind - but a lot of people are choosing not even to have a vehicle anymore. So it is a barrier to being able to do some of the things that we would want to do" (Subject 10).

This measure would seem to indicate a pattern of limited social engagement in the workplace. Those who describe no social activities with co-workers also indicated limited social activities in general. Those who indicated they were involved socially with co-workers outside work did not describe their relationships. This is cause to wonder whether these individuals are socially isolated, whether or not they identify themselves as such; whether this isolation causes them to be perceived negatively by co-workers or superiors; whether their limited social engagement is having a negative effect on their careers; and whether formal training could have alleviated any of these circumstances. For example, when asked to describe her support system at work, Subject 7 first spoke about job supports. When pressed to talk about social supports, she stated quite curtly, "it's fine; I don't really like socializing outside of work with workers" (Subject 7).

Coupled with these observations are the subjects' perceptions of their own acceptance by others and those with whom they worked in particular. This includes their perceptions of how they fit into their places of work. Subjects were asked if they felt they were accepted by co-workers personally as well as professionally in Survey 1. When compared with their descriptions of how they fit in at work from Survey 2, 15 participants who felt they fit in at work indicated they believed their co-workers accepted them as people and not just as somebody they had to work with who had a disability. To quote Subject 4:

> "Well, at work [fitting in] means respect from coworkers; the personality emphasized over the blindness; being respected as somebody who has valuable things to contribute and respected as a supervisor. I supervise three people and that's a big part of fitting in also and being able to relate to people in a work way, such as coffee breaks around the office, what have you … I think it's the kind of situation where I fit in very well in the sense that we all get along extremely well. I'm treated just as the others are in the area. There's not a whole lot of socializing that goes on out of the office with our group; it's just the nature of our personalities, I guess. I think, probably more of a factor than the blindness, is the fact that I choose not to drink. Some of the people socialize at the local establishments and that's just a choice that -- you know, I don't criticize them at all, but that's a choice I made several years ago. I think that's more of a social hindrance outside of work. But again, a lot of our people socialize while on the job but do not do so off the job. We all have families and all have other engagements" (Subject 4).

Only one subject reported a lack of acceptance on the part of co-workers and also described feelings of not belonging. In the words of Subject 12:

> "I think [fitting in] means [feeling] comfortable - feeling respected. You know - that I'm taken seriously and considered just as professional as everyone else. I guess in terms of looking at it from another perspective, not including peoples' bizarre comments that I get, I feel that I fit in within my small unit - but in all the other departments that may only have contact with me on an as-needed basis, once a month or something like that, I don't feel that they take me seriously, consider me professional, or even kind of listen to what I have to say. So it's sort of this small group of people who get to know me I fit in. Outside of that I don't fit in" (Subject 12).

After being asked for their idealistic perceptions of what fitting in at work meant to them, subjects were asked to describe how they perceived fitting in to their places of

work. This comparison looked at how subjects described their employment relationship after stating categorically that they either did or did not feel they were a good fit. Those subjects, 13 in all, who expressed positivity about their relationship with their employer, all seemed to be thinking about work in functional terms. On the other hand, those who expressed frustration around acceptance and inclusion talked about their employment relationship in social, behavioural and relational rather than a functional context.

An example of someone who spoke positively about his relationship was Subject 3:

> "Well, I guess to me [fitting in] means being accepted by my colleagues and, you know, being appreciated basically for doing the same work that they do, at a similar level, in terms of - you know - in terms of quality. I think it's important that your opinions are sought and accepted by colleagues. In the type of work I do, we work in teams all the time, so it's very important that we be able to work out how we're going to handle things on a given day. I would say that I fit in well. I mean, I certainly offer opinions about how things - how I think things should be done when we're organizing our work. I feel especially appreciated when sometimes I'm asked by newer people who are in training about how things are done and when I can offer things to help them too."

Subject 10 exemplifies someone who was thinking more about the social aspects of the work environment and expressing frustration about having difficulty navigating these:

> S10: "Other than professionally, what [fitting in] would mean to me is also fitting in socially, which is not what happens currently - at least not with a lot of people.
> R: "So thinking now about how what fitting in at work means to you - how do you think you fit in it work?
> S10: "Reasonably well."
> R: "So do you think you fit in socially to a degree?"

S10 : “Yes.”

R: “But – okay – but not as well as other people?”

S10: “Correct.”

R: “Why is that? Why do you think that is?”

S10: (long thoughtful pause) “I think it always comes back to the disability issue.”

Subjects’ perceptions of their acceptance were measured in terms of appreciation. They were asked to assess how well they felt that they did on the job and how well they were appreciated and respected in relative terms when compared to the appreciation and recognition they thought their sighted peers received. 13 subjects rated this experience as positive, while only three were negative. All answers were consistent across both surveys.

One example of a positive answer was that provided by Subject 2 who said:

S2: “[Fitting in means] being included in social activities, being asked for my opinion and meetings. In my case - input like for scheduling, planning things for students - that's pretty much it.”

R: “So, essentially then, socially and professionally.”

S2: “Yes.”

R:” Can you describe your relationship with your employer?”

S2: “Well, I think we've had a pretty good relationship. They value my ideas and opinions and I value their input as well I think we've got a good working relationship.”

R: “Assuming that it is different, how is this relationship you have with your employer now different from the relationship you had with your employer when you first started working there?”

S2: “I certainly feel more comfortable, you know, expressing my opinions. And if I don't agree with something, I certainly feel more comfortable talking to them about it. When I first went there I was a little... nervous”.

Another example, this time from Subject 5:

> S5: “Well, [fitting in is] being accepted by my colleagues, both professionally and personally - being able to actually joke around with people and not always having it so serious. You know, where you can actually relax a little bit, too, at the same time as, you know, as still doing your job - relax while doing it.”
>
> R: “So, relative to what fitting in at work means to you, how do you fit in at work?”
>
> S5: “On a personal basis, I'm fine. I get along with most people and we can joke around and work professionally together at the same time. Where I see a lack is that people are still stuck within that box where they'll leave you a note on your desk and expect you to respond to it when you can't see it.”
>
> R: “Yeah, in spite of the fact that both you and they work for an organization called the Canadian National Institute for the Blind.”
>
> S5 (laugh): “Yes. And so like some people get it, of course, and they are just aghast when Braille or an accessible format is not provided. And sometimes it seems like a chore.”
>
> R: “I guess you feel as though the frustration is compounded somewhat by the fact that this is a rehabilitation agency for people living with vision loss?”
>
> S5: “Exactly, and I would expect that actually you get more help from an organization or company that isn't about blindness and visual impairment. I go and I ask for something in an accessible format like my pension statement and it’s like, "oh, well, yeah, we'll give it to you eventually." No, no - everybody else got it; why can't I get it at the same time? Like my bank gives me statements in Braille.”
>
> R: “Other than the lack of accessibility, given the nature of the mission and the work the organization does, are there any other ways in which you feel you don't fit in relative to what you feel like fitting in at work means to you?”
>
> S5: “No, I feel that, like I said, I'm respected in the job I do and when I come up with ideas of stuff to do they don't go “no” and then, you know, somebody else gives the same idea: “oh yeah that sounds great!” You know, they actually take

> my ideas as what they are. And, you know, they give them the credence they deserve in that respect. At least, like I said, a lot of that stems from the supervisor I have. He's really good in that respect".

Finally, subjects were asked if their opinions on work-related matters were asked for and appreciated when offered. While 14 of 16 subjects felt positive that their opinions were appreciated, two subjects did not. Qualitative examples of their feelings were found in answers to the first three questions of Survey 2: "what does fitting in at work mean to you?" (Towers Perrin 2007), "how do you fit in?" (Towers Perrin 2007), and "describe your relationship with your employer" (Reese 2005).

A positive example came from Subject 13, who said:

> "I think fitting in means people see my strengths for what they are, in that I'm very good at data analysis, I'm very good at presenting information. And those are my strengths and I really like connecting with people. And that my weaknesses - you know, they're just seen as weaknesses - you know, sometimes I get overwhelmed so I might not follow through on some things just because of schedule. That the strengths and weaknesses are seen for what they are and not necessarily: "Oh my goodness! You're so special because you are good at certain things" or, "That's so bad because you have a disability." You know, people just see me just as who I am. They include me in things without worrying, oh, "can she do this?" or "can she do that?"" (Subject 13).

Subject 12, on the other hand, exemplifies those who expressed frustration about not being taken seriously, and attributed this to the fact she had a disability and the way this was perceived:

> "I guess in terms of looking at some of the challenges, my position has never really been a good fit. So when I've run into challenges that are related to accessibility, and that kind of causes some challenges around the parts of my

> work that I can do and can't do, there's definitely been some strain on my relationship with my direct supervisor (my team lead) as a result. It's been challenging to arrive at parts of the project in the work that I should be doing, but due to inaccessibility in the programs and things like that, I'm not able to—and there's just all kinds of challenges that result because of that. In terms of feedback, overall, I seem to have a good relationship with my team lead and my higher-up manager, but at the same time, because of the things that aren't accessible and sort of the restrictions that I have for fulfilling all the entire duties that I should be able to do, it seems to get in the way of future opportunities" (Subject 12).

How well did subjects integrate socially as well as functionally into their places of employment and achieve upward career mobility?

A measure of social integration in the workplace was the focus of Question 6 from Survey 1 ("are you on any committees at work?") (Lareau and Weininger 2003), as well as Questions 2 and 8 from Survey 2: "how do you fit in?" (Towers Perrin 2007) and "can you describe the orientation you received as a new employee?" (The Herman Group 2004).

All subjects answered consistently to both questions. Nine stated they were not on any committees at work, felt they did not fit in well, and did not receive a good orientation as new employees. On the other hand, the seven subjects who received a good new employee orientation felt they fit in and were involved in the life of the workplace. However, they participated in committees which were related to the quality of life in the workplace and not necessarily committees connected with the work in which the organization was officially engaged.

For example, of the subjects who felt they were not involved and had had a poor orientation, Subject 4 said:

> "My orientation consisted basically of meeting with my supervisor for a couple of hours and being told how he recommended the job should be done and he said, quote, "Well, I trust you on your own." There wasn't a lot of orientation. Fortunately because of my degree and my past work experience (I had previously worked at another university for a couple of years) I was able to jump right in and do the job. But there was not a lot of orientation" (Subject 4).

Moreover, having the ability to recognize that a current situation was similar to a past experience helped some subjects overcome what seemed to be a common perception: that employers generally do a poor job of providing a meaningful orientation, and this is exacerbated by blindness when one is unable to learn vicariously or incidentally. For example, Subject 9 stated:

> "I had very little [orientation]. I got my badges, I was shown where the washroom was, backdoor… I was walked through the computer system and I had CNIB come in to do all of Merlin plus with me and walked me through zoomtext. If I was a manager, I could see revamping the orientation process drastically and having an actual check list so that people feel like they belong" (Subject 9).

These results affirm the observations of Hatlen (1996) and Lohmeier, Blankenship, and Hatlen (2008), who identify the significance of under-developed social skills resulting from an inability to use sight as a tool to learn vicariously. Moreover, these results would indicate that it is not always safe to assume that experience from one situation will be seen as similar to the situation at hand, thus assisting individuals to handle situations with increasing effectiveness based on past experience.

Subjects demonstrated this by describing themselves as having low self-efficacy around dealing with work-related social situations. For example, when asked to describe his relationship with his employer, Subject 10 responded in part by saying,

> S10: "Just for the record; because I know you're trying to get certain answers, the person under discussion is also visually impaired and is very insecure, as a disabled person. But has a higher rank than I do in the organization."
> R: "You're talking about your manager now?"
> S10: "No I'm talking about the person -- I'm talking about the person who created the issues."

This comment illustrates a rather interesting perception on the part of Subject 10, who perceived that another individual, with whom he had his disability in common, viewed him as a threat despite holding a higher status in the organization. From Subject 10's perspective, this other individual who, unlike Subject 10, had experienced the onset of vision loss after commencing his employment, was viewed more positively than he himself was. Initially, he lacked confidence in his ability to deal with the situation, but eventually found the resources within to bring about a positive resolution. The inability to demonstrate competence by handling conflict in a way which is culturally appropriate in the workplace doubtless has a deleterious effect on career mobility.

It was very evident that of all elements of the ECC, the most relevant in terms of this study was career development. There was a synergy between the qualitative data from Survey 2 and the quantitative data from Survey 1, which involved asking subjects to describe the relevancy of their education to their career.

In Survey 1, subjects were asked if they used the vocationally specific skills they acquired while in school at work. Survey 2 asked subjects to identify the career

opportunities they had once entering the workforce. Answers to Question 4 from Survey 1 ("do you use the skills your education gave you in your job?") (Carr 1992, Raskin 1994), were compared with the answers to Question 7 from Survey 2 ("what have been your career opportunities?") (Raskin 1994).

Of the 16 subjects interviewed, 13 felt they were using the education they chose and received (based on their career aspirations) in their current work. The remaining three did not. All subjects' answers were consistent, in that their answers to the pertinent question from each survey were similar.

Among this group, there seemed to be a desire to maintain a connection to one's original calling. For example, Subject 3 who, when responding to Question 4 in Survey 1 indicated he used the skills his education gave him in his job, said of his career opportunities,

> "I would say the greatest career opportunity was to have had a chance to become an interpreter. Certainly I've had some very interesting assignments. I haven't had other promotions beyond that, but as I've explained, those are for management positions that don't really interest me. I've traveled pretty well. I've worked in all 10 provinces and the Northwest Territories" (Subject 3).

Further probing revealed Subject 3's current role was a promotion relative to the role he played in the organization when he was originally employed, and he was not interested in becoming a manager. He noted that administrative tasks would take him away from the work which defined the department, and which was his area of expertise based on his education and which he acknowledge he enjoyed immensely: "I like the variety of the work I do. The variety of subjects … the number of different things I've certainly learned about that I never would have read about" (Subject 3).

Of those who felt they were not using the skills their education gave them in their work, there seemed to be a perception that planning and intent had little to do with how they got where they now found themselves. Moreover, they seemed reluctant to define success and to take any credit for it presuming they were even willing to acknowledge they were successful. These perspectives were summed up best by Subject 10.

> "I have the job I have now, but I would say that any career opportunities that I had before, were career opportunities that I made for myself. You know, my first job, I actually talk them into creating the position for me, and was able to show a need for that position; and they took it on and I had that job for six years. And then when that job dried up I did the same thing. Until the current job - the job I have now is the only job I've actually ever gotten by going through a hiring process. I've led a rather unique life" (Subject 10).

It would seem that some blind people perceive that their careers have evolved by chance rather than by choice. This is perhaps illustrated when examining subjects' responses when asked if they had received any promotions (Question 4, Survey 1) (Carr 1992, Raskin 1994) against their descriptions of their career opportunities (Question 7, Survey 2) (Raskin 1994). Seven of 16 subjects indicated they had received at least one promotion. For this group, receiving promotions was slightly less than the norm. All nine subjects who indicated they had received a promotion made reference to this when describing their career opportunities.

For example, from among those who indicated they had received a promotion at work, Subject 13 stated:

> "Right-right. I started my very first job—you know, all 16-year-olds – they want to work. I wanted to buy my own piece of assistive technology (it was Type-and-Speak at the time) and I worked for a telemarketing agency for a couple of

> months. It was more of, I found an opportunity to get the Type-and-Speak, and that was it. I didn't like telemarketing. Most people don't – but you know, I had little, bitty odds and ends, kind of work-study programs. But NASA has really been the only one I've worked for" (Subject 13).

The belief that career opportunities simply happen as opposed to being created is exemplified to an even greater extent by this quote from Subject 8 who, in addition to reporting having had no promotions when answering Survey 1, when describing her experience when responding to Survey 2, said:

> "Like rare opportunities? What do you mean by that? Was I offered promotions and things? I applied for a job in the one board (Dufferin-Peel) where they were. It was a new Catholic board and they were getting 125 new teachers. And I was told in my letter that they weren't hiring now and that wasn't true. So everybody said I should fight it and I said no. I'm going to go where I'm needed and wanted. So I applied for everything north of Barry and I got a job in Fort Francis. And my principal said to me when he hired me, and he phoned me back over the phone, he said, "I've had sixteen people in my office telling me I'm nuts. I'm already in trouble with the staff. Please don't disappoint me." I said I would do my best and I was there for a year with a replacement contract. I applied for a second year, then the head of the board, the superintendent, came and said to me, "I know this isn't really done, but my wife wants to be in the high school. She wants the job you want. And I really like you, but I have to live with her so we're going to give her the job. You can fight it if you like, but I wouldn't advise it." So I applied again and I got a job at the same time in Hamilton – an offer in Hamilton Halton county board. And this one we're at now, Simcoe, and the job was in Orillia. So what it came down to was I was going to be either in Hamilton so I could sing in the Boch Alger Choir, or in Orillia to sing with the Seller Singers—and I liked the Seller Singers so that's why I went to Orillia" (Subject 8).

This quote, among all subjects' comments, best illustrates the widely held notion that subjects felt they lacked enough objective information to impartially weigh the positives and negatives of 2 or more options in order to make a decision. As a result, decisions are often formulated in a manner tantamount to "pulling a name out of a hat". Moreover, this answer demonstrates that not only is objective information not present, but that subjects have low self- efficacy concerning their ability to gather such information.

Summary

Although it is possible that subjects with characteristics other than vision loss, as well as other factors which affect the acquisition of social capital, could have been introduced, it was decided to limit the variables in order to isolate the link between the use of vision as a tool for vicarious and experiential learning and one's ability to acquire social capital.

The data gathered from the sixteen individuals who volunteered to participate in this study suggests that the struggles experienced by these subjects, for the most part, are not unique or exclusive to individuals living with vision loss. The experiences of these subjects would seem to indicate that any unique challenges can be attributed to a combination of the perceptions and attitudes of sighted people in their places of work, and a lack of opportunities to achieve the learning outcomes of the ECC.

The ability to acquire the skills and knowledge directly associated with the learning outcomes of the ECC appears to improve the degree to which subjects were able to acquire social capital. However, it also appears that this increased social capital, while

improving employability, does not necessarily enhance one's ability to be upwardly career-mobile.

Moreover, technical competence does not necessarily give rise to positive personal perceptions on the part of co-workers and superiors alike. This emphasizes the need for strong social skills in order to overcome such barriers as stereotypes and other negative perceptions. For example, Table 4 illustrates how the acquisition of social capital was aided by the assistance of learning outcomes directly related to the eight elements of the ECC. In some situations, the table indicates that no relationship existed between the acquisition of social capital and the ECC. In these instances, subjects either did not articulate that they had acquired ECC-based social capital, or did not demonstrate that said social capital enhanced the quality of their employment relationship.

Table 3: Principles of the Expanded Core Curriculum

Principles of Expanded Core Curriculum	Education and Career	Social Integration in the Workplace	Social Activities	Support Systems in the Workplace	Support Systems outside the Workplace	Being Accepted	Fitting In	Conclusion
compensatory academics	Y	X	X	X	X	Y	Y	Y
social development	Y	Y	Y	Y	Y	Y	Y	Y
recreation and leisure	X	X	X	X	X	X	X	X
independent living skills	X	Y	Y	X	X	Y	Y	Y
orientation and mobility	Y	Y	Y	X	X	Y	Y	X
technology	Y	Y	X	X	X	Y	Y	Y
career development	Y	X	X	X	X	X	X	X
visual efficiency	X	X	X	X	X	X	X	X

Although a strong relationship appears to exist between the ECC and social capital, it is important to note that not every measure intended to quantify social capital could be linked to measures intended to assess subjects' knowledge with respect to the intended learning outcomes of the ECC. When looking at the data from measures intended to assess subjects' knowledge relative to the eight components of the ECC, responses seemed to indicate that at worst, participants perceived their skills, knowledge, and abilities as adequate; and that they didn't perceive that any limitations of which they might be aware that compromised their autonomy or independence to a degree which

demonstrated a need for change. At the same time, however, subjects seemed generally unaware of how the knowledge and skills they possessed were helping or enabling them; and in addition, they also seemed unaware of skills or knowledge which, if acquired, could assist them in improving their situation.

For example, when answering Question 20 from Survey 2 ("If not assisted, could you manage choosing your clothes each day yourself?"), Subject 13 said:

> "The thing I will say that I still struggle with and I'm going to have to figure out is – you know, again my mom – I am the only kid, so my mom, she was very protective of me. So you know, she picked out the clothes, she did my hair and in college I would just wear a pony tail. You know, it was just an easy enough thing. And culturally, for black women, your hair is your identity. And I never really got into the whole thing because that is a visual concept, you know, "Why am I going to worry about how my hair looks if I can't really see it anyway?" But in a professional setting, and if the standard even within the community is that - you know, black women have - you know, their hair fixed every week or whenever … there is a range in that I am not the type to want to go get my hair fixed every week, but I do need to be aware that, okay, I probably should have some different hair styles. And then I'm still kind of dealing with - that because I got so used to wearing a pony tail - now that I'm turning 29 I need to look more like a woman because a lot of people assume that I am younger than I am. If I'm going to be in a management role in the next couple of years, then I need to look more manager-like. And I'm still understanding how that goes and I do think that it's directly related to blindness" (Subject 13).

Discussion

The analysis of the results of this study relative to other published research was limited by two factors. Firstly, the nature of most causes of vision loss is such that onset occurs most frequently among persons over the age of 65. Secondly, vision loss is less common than other disabilities (personal communication CNIB June 2011).

As a result, the number of individuals, of school or working age living with a visual impairment is relatively few compared to the total number of persons experiencing a visual disability, and people with disabilities in general. As a result, the body of published research pertaining to the social development of blind persons from a young age is quite limited.

In addition, estimates put the quantity of published literature which is accessible to those unable to read conventional print at approximately 5% of what is actually published (personal communication CNIB June 2011). While this may not be all that significant considering the limited scope of the literature which is relevant to this research, it nonetheless limits the ability of blind persons engaging in research activities to source and analyze research materials in quantities as robustly as would be the case if the ability to read conventional print was present. As well, it limits the ability of persons with visual impairments to individually research self-help with any social capital problems they may have.

Up to now, it appears that research concerning barriers to integration and inclusion of persons with disabilities in general, and those with visual impairments in particular, has tended to focus on people rather than their problems. As a result, the issue of chronic unemployment among people living with vision loss has traditionally been

perceived as one whose greatest challenges are found on the supply rather than the demand side of the labour market chain. In other words, the prevailing perception throughout society is that those with disabilities must overcome obstacles in order to participate in the labour market. There does not appear to be any literature which advocates a need for change to the environments into which persons living with vision loss must attempt to integrate themselves with or without external supports.

The relevant literature falls into one of three categories:

a. describes the limitations which affect learning resulting from vision loss and provides recommendations to remedy these;
b. advocates needs from a variety of philosophical perspectives; and
c. analyses the chronic social problem of high unemployment among blind and visually impaired persons.

In all three instances, it is reasonable to conclude that research findings either directly or indirectly support the idea that the ability to improve social capital would vastly improve if a universal approach, based on the ECC, was adopted and implemented.

Firstly, with respect to the first category, differences in the knowledge and skill levels between sighted and non-sighted individuals, in subject areas specifically identified in the ECC, are well documented. In most cases, these studies suggest that formal instruction be provided so that visually impaired individuals can achieve the same competencies as sighted people for whom learning occurs more independently.

The research indicates that gaps develop early and often, can occur throughout both one's school and working lives, and, while not specifically stated, could be addressed by way of the ECC. A few examples of this type of literature follow.

According to Brambring (2007), the development of language is hampered by the challenges which vision loss presents relative to one's ability to learn vicariously. In his study, very young blind children were found to possess language which contained fewer subtleties than sighted children. For example, while the blind children were familiar with the concept of the word "chair", they were not familiar with words which described different types of chairs, as were their sighted peers.

Children of this age also lack in their development of fine motor skills. This is a barrier to the development of social capital, since many childhood play activities involve making things, catching and throwing. These skills also transfer to many activities of daily living (Brambring 2007).

Another example of a delay in skill and knowledge acquisition in children is found in the work of Lewis and Iselin (2002). When asked to describe their child's competence concerning the ability to perform 101 daily living tasks independently, parents of sighted students reported their children were able to perform 84% of the tasks on the list independently, while parents of blind children reported that on average their children only performed 44% of the tasks independently (Lewis and Iselin 2002).

The advent of social media has resulted in adolescents and teens relying increasingly on these tools as a means of social networking to find and develop social relationships. Even though many technological advances have been made providing both timely and complete access to ever-increasing amounts of information, participation in social media is either limited or nonexistent for most persons living with vision loss (Kelly and Smith 2008).

Sports, recreation and physical activity have long been recognized for their social and psychological as well as physical benefits (Ponchillia 2002). Yet from a young age, both parents and children demonstrate a correlation between degree of vision loss and expectations surrounding for participation in physical activity. As the child's vision decreases, both the child and his/her parents have progressively lower expectations around participating in physical activity, and come to see it as having les importance relative to other aspects of life (Stuart, Lieberman and Hand 2006).

Yet the ease with which measures can be implemented to remedy or prevent limitations such as these from becoming barriers is demonstrated by Ponchillia, Armbruster, and Wiebold (2005). Students exposed to physical activity for one week, showed marked improvements in self-concept, self-esteem, and displayed a more positive attitude toward life generally.

The body of research that exists concerning the limitations placed on vicarious learning by vision loss, the potential of the ECC as a strategy to address these limitations, and the recognition of the potential for full societal participation by persons living with vision loss which could result, is cause for speculation. Despite its proponents, the ECC seems to be enjoying isolated success in terms of its application, particularly within the United States. In addition, efforts to identify more situations in which its application would be both relevant and appropriate, beyond the K to 12 environment, appear limited.

Families and professionals alike seem reluctant to acknowledge that blind students learn differently from sighted students. In some cases, financial constraints seem to dictate how much program time can be devoted to providing a curriculum which encompasses most if not all components of the ECC. It also appears that specialized

schools and school programs to educate blind students in their home communities are somehow mutually exclusive. As a result, teachers on average spend nearly one third of the school day teaching and tutoring traditional academic materials (Wolfe et al 2002).

Gaps have been identified between the perceptions of parents and teachers. These perceptions, in turn, influence expectations. As a result, some students receive more ECC- based instruction that anyone realizes, because teachers sometimes provide this instruction without actually planning for it or doing it intentionally.

There is a widely held belief that most ECC instruction should not happen at the expense of traditional academics, and that there isn't enough time in the regular school day to incorporate it (Lohmeier 2009). Yet it has been demonstrated that when the will is present, it is possible to change the focus and outcomes of school programs, even in the face of long-held underlying assumptions and beliefs (Lohmeier 2008).

Finally, some of the relevant research focuses on the importance of self-determination which can effectively be categorized as self-social supports, and the presence and quality of external supports (family and friends) and internal supports (relationships in the workplace) available to visually impaired people who are employed. From a very young age, blind children demonstrate minimal ability to practice self-determination. This is attributed to a lack of opportunities to learn it (Robinson and Lieberman 2004). This situation is reflected in findings that children with visual impairments placed relatively little importance on factors which affect how they are perceived by others such as physical appearance, athletic competence and social acceptance (Shapiro, Moffett, Lieberman and Dummer 2008).

In spite of this, a study involving visually impaired students revealed that as a group, they generally exhibited a high locus-of-control. An exception to this was their disability, which drew responses indicating negative self-perception especially as vision decreased or if the onset of the visual disability was recent (Roy and MacKay 2002). It is clear that self-determination, like other compensatory skills, must be taught (Agran, Hong and Blankenship 2007).

Employers' negative attitudes and a perceived inability to accurately assess the job specific skills and competencies of blind applicants, has been identified as a significant barrier to employment (Wolffe and Candela 2002; Robbins 2011). At the same time, when transitioning from school to work, those blind employees who possess work experience, academic competence, self-determination, the ability to use assistive technology, and locus of control experience a much greater rate of success than those who do not (McDonnall and Crudden 2009). This is consistent with the subjects in this study.

According to Golub (2006), employers recognize they are responsible, along with their visually impaired employees, for making the employment relationship satisfying for the employee. Most subjects in the study acknowledged they felt this was being done by their employers, at least where actual performance of job related tasks was concerned.

Internal support, that is to say support derived from social relationships in the workplace, has been researched by Papakonstantinou and Papadopoulos (2009). While not entirely clear, they distinguish between positive and negative support. The terms practical and emotional support were used to describe what has been called functional

and social support in this study. A distinction was also made between perceived and received support.

While not asked directly, it would appear that the results of this study are consistent with those of Papakonstantinou and Papadopoulosin (2009) in that much of the support described by subjects is perceived rather than received, since there is little or no affirmation that the support is desired, and provided in a manner consistent with an overt request.

Finally, according to Cimarolli and Boerner (2005), support from family appears to be the most significant type of support to affect well-being and success of blind employees. Instrumental positive support was integral to career success. However, negative success, which usually took the form of the underestimation of the visually impaired person's ability or potential, was the most serious form of negative support. This is consistent with the finding of this study in which subjects frequently stated the majority of their social contact outside work was with family members.

Conclusion

It must be emphasized here that as the ECC was only conceptualized and put forward beginning in 1996, none of the subjects in the study are products of an educational system or program modeled after this concept. One wonders what the responses of these same subjects to both surveys would have been had programs such as that proposed by Hatlen (1996) been available to them.

The results of this research seem to indicate that the learning outcomes of the ECC can and indeed do give rise to improved potential for the development of social capital. However, this social capital does not necessarily manifest itself in one having the ability to experience upward career mobility.

Those subjects who demonstrated knowledge derived from the learning outcomes of the ECC have acquired this knowledge tacitly, and seem largely unaware they are applying it in order to be employed at a time when three out of four blind people are not.

At the same time, one wonders whether a heightened awareness of social capital, regardless of its source, would improve the extent to which visually impaired workers are able to thrive - even though they already enjoy tremendous success relative to the majority of those with whom they have sight loss in common.

In this case, social capital is a double-edged sword. On one hand, it makes the success those in the visually impaired community enjoy by way of employment possible. On the other, the gaps which clearly exist between what is and what could be, given the appropriate ECC- based educational opportunities, are pronounced. Moreover, the subjects in this study, while aware of their abilities, seem unaware of the potential that

could be unlocked if the types of learning experiences defined in the ECC were readily available in the workplace.

A supporting opinion is found in Jashapara (2007), who argues that collective consciousness and organizational memory play primary and deeper roles as knowledge processes and structures. Consciousness is not a Hegelian world-spirit, but rather a real process embedded in people's brains and mental activity. Organizational routines provide the contingent condition or 'spark' to activate organizational knowledge processes (2007). While Jashapara argues this leads to the development of intellectual capital, it could be said to also give rise to the social capital derived from the institutional knowledge one may acquire in a given environment over time.

The tendency that exists which seems to predispose us to oversimplify issues by attributing their existence to one cause needs to give way to an attitude which reflects the understanding that common effects can result from very unique causes.

Since we know that employee onboarding and orientation is substandard across the workforce in general, we should have no trouble accepting the need to improve it, recognizing that labour market conditions dictate a need for workforce renewal which must embrace diversity if the void left by retiring baby boomers is to be filled.

It is apparent that an approach modeled on the ECC, if more universally adopted, would serve to improve the quality of life and emotional health of everyone in society. If the ECC went beyond the K to 12 school system to include such on-campus resources as disability services offices, counselling centres and learning assistance centres, services would become more available to students with disabilities.

As described earlier, an examination of the literature concerning the onboarding of new employees, and the ongoing training and development of employees in general, substantiates the need for formally organized learning opportunities for all. So it follows that if approaches to learning based on the ECC became more widely available (so as to make them more accessible and meaningful to those in the visually impaired community), it is conceivable that others whose situation is similar though it results from different circumstances, could benefit as well.

While the findings of this research clearly identify challenges which are significant to visually impaired persons in today's world of work, the results of this study demonstrate that blind and visually impaired persons have much in common with their sighted colleagues.

The development of social institutions and, more specifically, places of work which strive to be inclusive by fostering the development of social capital without regard for individual circumstances would be extremely worthwhile to pursue.

Such an approach could draw on the ECC model and would uphold the principles of the social model of disability, since it would acknowledge that the environment, rather than physical characteristics which impose limitations, must adapt in the interests of full inclusion and participation.

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Appendices

Appendix A
Survey 1

Have you been visually impaired all your life? (Hatlen 1996)

Visually impaired	(1) ___	
Visually not impaired	(2) ___	/2

Level of Education

What is the highest level of education that you have attained? (Kirchner and Peterson 1992; Lohmeier 2005).

Did not finish High School	(1) ___	
Finished High School	(2) ___	
Undergraduate Degree	(3) ___	
Community College Diploma	(4) ___	
Post Graduate	(5) ___	/5

Social Capital

1. How long have you worked for your current employer?(Carr 1999; Raskin 1994)

0-4 years	(1) ___	
5-9 years	(2) ___	
10-14 years	(3) ___	
15-19 years	(4) ___	
20 + years	(5) ___	/5

2. How many hours a week do you work? (Carr 1992; Raskin 1994)

1-19 hours	(1) ___	
20-29 hours	(2) ___	
30-39 hours	(3) ___	
40 + hours	(4) ___	/4

3. Does your job keep you busy all day? (Carr 1992; Raskin 1994)

No	(1)___	
Yes	(2)___	/2

4. Do you use the skills your education gave you in your job? (Carr 1992; Raskin 1994)

No	(1)___	
Yes	(2)___	/2

5. Have you had any promotions? (Kirchner and Peterson 1988; Lohmeier 2005)

No (1) ___
Yes (2) ___ /2

6. Are you on any committees at work? (Lareau and Weininger 2003)
   No (1)___
   Yes (2)___ /2

7. Have you assisted with planning any social activities for your company or department? (Lareau and Weininger 2003)
   No (1)___
   Yes (2)___ /2

8. Do you have friends at work? (Lareau and Weininger 2003)
   No (1)___
   Yes (2)___ /2

9. Are you lonely at work? (Lareau and Weininger 2003)
   Yes (1)___
   No (2)___ /2

10. Do you go for coffee and/or lunch with co-workers regularly? (Lareau and Weininger 2003)
    No (1)___
    Yes (2)___ /2

11. Do you socialize with people you work with outside of work? (Lareau and Weininger 2003)
    No (1)___
    Yes (2)___ /2

12. Are you accepted by co-workers personally as well as professionally? (Lareau and Weininger 2003)
    No (1)___
    Yes (2)___ /2

13. Do you feel you fit in? (Lareau and Weininger 2003)
    No (1)___
    Yes (2)___ /2

14. Do you feel like what you do is appreciated and considered a important as the work other people do? (Lareau and Weininger 2003)

No	(1)___	
Yes	(2)___	/2

15. Are your ideas or opinions asked for and appreciated when offered? (Lareau and Weininger 2003)

No	(1)___	
Yes	(2)___	/2

Total:
/35

Appendix B
Survey 2

1. What does fitting in at work mean to you? (Towers Perrin 2007)
2. How do you fit in? (Towers Perrin 2007)
3. Describe your relationship with your employer? (Reese 2005)
4. How is this relationship different from the relationship you had when you first started working there? (Covey 2004)
5. Describe your support system in the workplace? (Hatlen 1996)
6. What was your original career goal? (Carr 1992)
7. What have been your career opportunities? (Raskin 1994)
8. Can you describe the orientation you received as a new employee? (The Herman Group 2004)
9. How do you read and write? (Hatlen 1996)
10. How did you learn to read and write? (Hatlen 1996)
11. Describe your social life outside of work. (Hatlen 1996)
12. What are your hobbies/interests? (Hatlen 1996)
13. Describe your participation in physical activity, if any? (Hatlen 1996)
14. What forms of technology do you use? (Hatlen 1996)
15. How well would you say you are able to use the technology you use? (Hatlen 1996)
16. How well do you travel independently? (Hatlen 1996)
17. How did you develop your ability to get around independently? (Hatlen 1996)
18. How did you decide on a career goal? (Hatlen 1996)

19. How do you decide what to wear every day? (Hatlen 1996)

20. If not assisted, could you manage this yourself? (Hatlen 1996).

21. Where and how did you learn this? (Hatlen 1996).

Appendix C
Informed Consent Form

Research Project Title: Social Capital and Disability in the Workplace
Researcher: Timothy G. McIsaac, BED, B.A, CRM

This Consent Form, a copy of which will be left with you for your records and reference, is only part of the process of informed consent. It should give you the basic idea of what the research is about and what your participation will involve. If you would like more detail about something mentioned here, or information not included here, you should feel free to ask. Please take the time to read this carefully and to understand any accompanying information.

1. Purpose of Research
   To investigate the relationship between the Core Curriculum (Lohmeier 2005) and Social Capital (Lareau and Weininger 2003). More specifically, the research will seek to discover whether visually impaired individuals, who have received an education based on the Core Curriculum, demonstrate greater ability to acquire Social Capital than visually impaired individuals, who have only received a more traditional academic education based on the Three R's (Lohmeier 2005), and sighted individuals.

2. Research Procedure
   Participants will take part in telephone interviews during which they will be asked two sets of questions. The first set of questions will be short answers which can be answered with yes/no, while the second set will be long answer designed to elicit more detailed information. Subjects will be made aware that should they become too uncomfortable answering specific questions, they may decline to answer them and continue with the interview, or withdraw from the interview at anytime.

3. Description of Risk
   The risk associated with participation in this study will be no greater than that which occurs in the normal course of daily life.

4. Description of Recording Devices
   All interviews will be recorded using a speaker phone and digital audio recorder so they can be transcribed verbatim and analyzed.

5. Confidentiality
   All data sheets, related written materials and audio recordings will be locked safe at the researcher's home, and will be destroyed at the project's completion. No individual findings will be reported. Any comments attributed to a participant will be quoted without mention of any names.

6. Feedback

Subjects will be provided with a copy of the results in the medium of their choice, should they request one.

Your signature on this form indicates that you have understood to your satisfaction the information regarding participation in the research project and agreed to participate as a subject. In no way does this waive your legal rights nor release the researchers, sponsors, or involved institutions from their legal and professional responsibilities. You are free to withdraw from the study at any time and or refrain from answering any questions you prefer to omit without prejudice or consequence. Your continued participation should be as informed as your initial consent so you should feel free to ask for clarification or new information throughout your participation.

Researcher: Timothy G. McIsaac (204) 897-5647
Supervisor: Christine Blais

Participant's Signature_____Date_____

Researcher's Signature_____Date_____

Appendix D
Email Invitation

Greetings.

My name is Tim McIsaac and I am conducting a research study for my thesis for a Master's degree in Disability Studies at the University of Manitoba.

The purpose of the study is to investigate the relationship between the Expanded Core Curriculum (Lohmeier 2005) and Social Capital (Lareau and Weininger 2003). The research will seek to discover whether visually impaired individuals, who have received an education based on the Expanded Core Curriculum, demonstrate greater ability to acquire Social Capital than visually impaired individuals, who have received a more traditional academic education based on the traditional Core Curriculum (Lohmeier 2005).

Volunteers must be visually impaired and must have been visually impaired at the time they started working for their current employer.

Any interested parties may contact me by e-mail at tmcisaac@mts.net.

Thank you for your assistance.

Regards,

Tim McIsaac