Game Changer: Encouraging Cross-Cultural Collaboration through Fun Interactive, Interpretive Experience in the Discovery Forest, Kenora, Ontario

by

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A Thesis submitted to the Faculty of Graduate Studies of

The University of Manitoba

in partial fulfilment of the requirements of the degree of

MASTER OF NATURAL RESOURCES MANAGEMENT

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Winnipeg

December, 2013

Abstract

This research was undertaken as part of the Common Ground Research Forum (CGRF) in Kenora, Ontario. The CGRF was established to better understand collaboration in the context of cross-cultural relationships. The purpose of this research was to design a prototype of a fun, interactive interpretive experience that has the potential to build cross-cultural relationships among youth. The study employed a qualitative approach by utilising a combination of semi-structured individual and group interviews with Kenora residents and analysis of existing online platforms. Utilizing the data collected during the two fieldwork phases a prototype for the Lake of the Woods Discovery Centre (LWDC) was designed. Feedback from participants suggested that the prototype would be a good tool for improving cross-cultural relationships among Kenora youth in the long term. The prototype was submitted to the LWDC for implementation in collaboration with local high-schools.

Acknowledgements

me to pursue my dreams and apply to NRI. I am grateful to the NRI student community for the supportive and friendly atmosphere. I am especially grateful to Eranga Galappaththi for lending me an ear and giving me a hand whenever I needed it. I am deeply grateful to my family: my parents, Olga and Vladimir, and my sister, Sarah, who are the most incredible and reliable network of support. Thank you for taking a genuine interest in my research! Last but not least, I am forever grateful to my husband, Alex, for joining me on this journey and for being my biggest pillar of strength.

Dedication

To my family

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CHAPTER ONE: INTRODUCTION

> *"In drying plants, botanists often dry themselves.*
> *Dry words and dry facts will not fire hearts."*

> Park and Museum Interpretation: Helping Visitors Find Meaning
> John Muir (1896 in M. P. Gross & R. Zimmerman 2002, 265)

Lake of the Woods Discovery Centre is located in Kenora and found in the northwest corner of the Lake of the Woods Region[1] (northwestern Ontario). The Centre opened its gates to the public in mid-2011, revealing the story of the region to its visitors through a large interpretive gallery and a soon-to-come high definition theatre (Paterson 2012). The centre is also a home to a botanic garden that presently contains 25 species of local plants – the Lake of the Woods Discovery Forest[2] (Paterson 2012).

Aside from serving as Kenora's visitor information centre and the regional tourism destination, Lake of the Woods Discovery Centre has an important cultural purpose. It was created in order to "(c)elebrate the coexistence and sharing of resources between the City of Kenora and Treaty 3 communities" and to "(p)rovide infrastructure needed within the community for cultural activities…" (Paterson 2012). Specifically, "celebration of sharing the community cultures (is) a major focus of the stories told in the Lake of the Woods Discovery Centre" (Paterson 2012).

The geographical location of the Lake of the Woods Discovery Centre is very significant and directly connected to the socio-cultural history that served as a background for the creation of the centre. Lake of the Woods Discovery Centre is situated at the beginning of "The Rat Portage", which historically is considered to be "the

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[1] Lake of the Woods Region includes the Lake of the Woods and the First Nations and Municipalities that are situated on the shores of Lake of the Woods.
[2] Lake of the Woods Discovery Forest is a project of the Lake of the Woods Discovery Centre and is an interpretive forest that is used to build understanding of the forest that grows on Lake of the Woods.

focal point of trading between Upper Canada and the western frontier for Canada from the 1600's through the 19th century" (Paterson 2012). At the time when European settlers first arrived to the northwestern Ontario area, the local Aboriginal communities were thriving and welcoming. The two cultural groups not only coexisted in peace, but their relationship flourished through trade and negotiation (Robson et al. 2013). However, when the settler population expanded, this relationship took a wrong turn. Across Canada, the British Crown (and later the Crown in Right of Canada) entered into treaties with Aboriginal peoples in order to regulate the land and use of natural resources. While the Aboriginal peoples viewed the treaties as agreements to share the resources of their ancestral lands, the settlers did not share that perspective. Seeing the financial potential of the new frontier, the latter aimed at large-scale resource exploitation. Backed by the Crown, industrialists, labourers and settlers arrogated the lands (Robson et al. 2013).

Kenora, northwestern Ontario, was not an exception. In 1873, the local Aboriginal communities entered Treaty 3, a decision which became the turning point for the Aboriginal-settler relationship in the region (Robson et al. 2013). Along with Treaty 3, came residential schools, various cultural assimilation attempts, loss of traditional livelihoods, racial incidents, and general mutual hostility between Aboriginal and settler communities (Aiken 2011; Robson et al. 2013).

By the 1970's, intense social and cultural conflict in Kenora earned it the title of the most racist town in Canada (Aiken 2011; Robson et al. 2013). Partially, the problem was due to the demographic transition that began in the region in the mid-20th century as Aboriginal people became more urbanised (OFIFC 2007; Wilson & Peters 2005). Prior to this process, Canada could be roughly "divided into 'primitive' spaces of First Nations

culture and the 'modern' space of urban Canadians" (Wilson & Peters 2005, 399). Historically, Aboriginal communities, typically living on reserves, suffered from significantly higher levels of unemployment than the settler communities residing in urban areas (OFIFC 2007). The settler communities perceived Aboriginal culture as incompatible with urban life and assumed that Aboriginal individuals who made the decision to migrate to urban areas wished to assimilate. But in fact, many kept their traditional cultures (Wilson & Peters 2005; AJIC 1999). Moreover, Aboriginal leaders in the Treaty 3 region have increasingly expressed their will to "join their municipal neighbours in sharing the benefits of resource revenues" (Aiken 2011, 11) and even to develop self-government. But due to complex social, political, financial and legal factors, satisfactory solutions involving resource sharing and self-determination remain elusive to this day (AJIC 1999).

It was the violent racial incident that resulted in the deaths of two First Nations residents in Kenora in 2000 that served as a wake-up call for both Aboriginal and Euro-Canadian residents of the city (Aiken 2011). Following the incident, the leaders on both sides decided to gather and "work cooperatively towards peace" (Aiken 2011, 18). They created the *Common Land, Common Ground* initiative in order to discuss areas of mutual concern and find a way to live in harmony (CGRF n.d.b). The initiative gave hope to many Kenora District residents, but tension remained in the air, threatening to flare up any moment (OFIFC 2007).

The situation became even more acute with the economic crisis that struck Kenora District in the dawn of the new millennium. In 2005, Abitibi-Consolidated's Kenora paper mill announced its permanent closure, causing hundreds to become

unemployed. It was a severe socio-economic hit for Kenora District, as its local and regional economy relied heavily upon forestry and forestry-related industry (Aiken 2011; Paterson 2012; Sinclair et al. 2008).

In search of viable solutions to this complicated situation The City of Kenora turned to tourism. Hoping to rejuvenate the local economy, as well as mend a divided society, the city decided to invest in tourism infrastructure and development (Paterson 2012).

1.1   Interpretation

Being an important part of the fast growing tourism industry, museums, botanic gardens and interpretive centres represent a big part of the global effort to preserve and present different cultures' diverse knowledges about plants to the general public (Notzke 2006). While there are various ways to go about this mission, most museums and botanic gardens adopt the simple, traditional way of delivering information to visitors. They implement one-sided interpretation, which treats visitors as passive consumers of art and culture (Ballantyne and Uzzell 2011).

But in today's fast paced world, where information is highly accessible and diverse, one-sided interpretation is just not enough to win people's attention and maintain their true interest (Brown 2009). We are an "experience society" that is no longer satisfied with "passive consumption" (Brown 2009, 110) but instead is searching for a more meaningful, yet fun, engaging and thought provoking experience (Brown 2009, 110; Brown 2008).

As early as 1977, Freeman Tilden – one of the fathers of the interpretation field – stressed that it was not enough to communicate factual information to the visitors (Tilden

1977). He defined interpretation as "an educational activity, which aims to reveal meanings and relationships through the use of original objects, by firsthand experience, and by illustrative media" (Tilden 1977, 8). Another interpretation expert revealed that he "needed to try new things, to question the existing truths about interpretation, and to think about what interpretation can be instead of what it has been" (Veverka 1994, iii). Finally, the new millennium ushered in greater recognition of the visitors' active role in the interpretation process. No longer perceived as one-sided, contemporary interpretation is viewed as an interactive "process that begins with the information chosen to be presented by… site management and continues through the visitor's understanding and experience of the interpretation" (Poria et al. 2009, 93). In the context of this research, I decided to "try new things" and "think about what interpretation (could) be" so it would potentially help mend human relationships. A substantial body of research about the effects of having fun and playing games, as well as my personal experience, led me to the decision to include games and fun in the design of the interpretive experience in my research.

1.2   Fun, Play and Games

The need to facilitate a fun experience is very important in the context of this research. Creativity, fun and playfulness are very strong drivers. These qualities stand out among other gray-ish everyday activities; they encourage people to participate, they intrigue them, raise their mood and trigger their interest (Brown 2009; Brown 2008). A good example for a fun and playful activity is Volkswagen's The Fun Theory project[3] that encourages people to make healthier, smarter and more sustainable choices by

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[3] http://thefuntheory.com/

making it fun for them. For instance, in order to encourage people to take the stairs and not the escalator, at a particular subway, the stairs were re-designed into piano keys that produced piano sounds when people stepped on them.[4] This creative and fun activity caused more people to take the stairs. In this research I focus on games as an organized form of play, and as means of creating a fun atmosphere (Raphael et al. 2010). It has been found that we can become fonder of people after playing a game with them, even if we lose (McGonigal 2010). In a way, games put us into a neutral space separate from stressful everyday issues (Hromek & Roffey 2009; McGonigal 2010) – similar to the role of the Common Ground Research Forum, as described in the following subsection.

1.3   Common Ground Research Forum

My research is conducted in the context of the Common Ground Research Forum (CGRF).[5] Commencing in 2009, the forum has brought together numerous scholars and community partners, including The City of Kenora, Grand Council of Treaty 3, three local First Nations, Kenora Métis Council and the Lake of the Woods Discovery Centre, in order to research and discuss the complex social relations in the area (Aiken 2011; CGRF n.d.a; Sinclair et al. 2008). The role of the forum is to "provide a neutral space, outside of decision-making space, where communication and exchange allows actors to deepen their understanding of each other's values prior to working together to make plans for public resources" (Sinclair et al. 2008, 25). My research proposes a new prototype of interactive interpretation experience for Kenora high school students visiting Lake of the

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[4] http://www.youtube.com/watch?v=2lXh2n0aPyw&feature=player_embedded
[5] CGRF is a Community-University Research Alliance funded by the Social Sciences and Humanities Research Council of Canada (CGRF n.d.a)

Woods Discovery Centre and the Lake of the Woods Discovery Forest. The prototype focuses on local plants in Kenora District.

The choice to concentrate on plants was not arbitrary. Plants play an important and central role in our lives, even though we are not always aware of it and may even take it for granted. Food, medication, textiles, houses and furniture, paper and pencils, and even some decorations – all are made of various types of plants or contain plants as their main ingredients (Balick and Cox 1996). In fact, "the very course of human culture has been deeply influenced by plants" (Balick and Cox 1996, vii).

1.4   Bio-Cultural Design

Engaging Kenora high school students in a meaningful, yet fun, interactive interpretation experience is a complicated task, not least because of the region's complex socio-cultural history. In my view, it can be achieved through a collaborative approach. Such an approach must harmoniously contain a variety of worldviews, beliefs, cultures and characters, but at the same time, take advantage of the innovations that the modern world offers (Davidson-Hunt et al. 2012).

The newly emerging field of Bio-Cultural Design embodies the above mentioned requirements. Focusing on sustainable rural development, Davidson-Hunt et al. (2012) define Bio-Cultural Design as "an intentional, collective and collaborative process by which individuals with a diversity of knowledge and skill sets engage in a creative process of designing products and/or services" (Davidson-Hunt et al. 2012, 39).

Bio-Cultural Design combines the fields of "biocultural diversity" and "design" (Davidson-Hunt et al. 2012). The Global Diversity Foundation defines "biocultural diversity" as "the total variety of the world's cultures and natural environments" (GDF

2006). In the context of my research, biocultural diversity is viewed as co-existence of cultures, values, world-views, ideas, memories, personal interpretations and past-lived experiences. Nelson and Stolterman define "design" as "a process of composition, which pulls a variety of elements into relationship with one another, forming a functional assembly that can serve the purposes, and intentions, of diverse populations of human beings" (Nelson & Stolterman 2003, 22). Thus, practically speaking, Bio-Cultural Design is about trying out different compositions of harmonious co-existence (Figure 1).
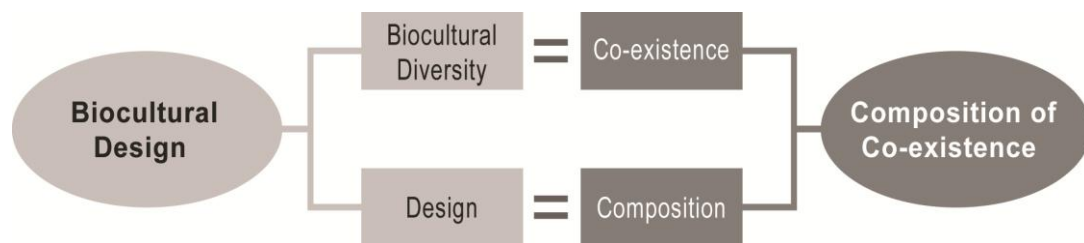
Figure 1: Bio-Cultural Design as Composition of Co-existence. © 2013 Inna Miretski, University of Manitoba. Based on Davidson-Hunt et al. 2012.

The collaborative and flexible process of Bio-Cultural Design enables all the participants – visitors, site managers and content contributors[6] – to produce a cross-cultural experience. Bio-Cultural Design offers the opportunity to turn the complex differences into a more harmonious diversity.

1.5 Purpose and Objectives

The aim of this research was to create a tool to facilitate a fun, interactive interpretive experience that has the potential to improve cross-cultural relationships among the youth of Kenora District, Ontario. Accordingly, the objectives were to:

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[6] Various professionals and individuals who contributed their knowledge to be presented at certain museum, exhibit or other touristic site.

1. Document local stories, knowledges and experiences about a selection of 25 local plants;

2. Describe and analyse six cases that demonstrate the use of interactive, participatory and fun strategies to promote a certain cause; and,

3. Design a new prototype of fun, interactive interpretation experience for the Lake of the Woods Discovery Centre, Kenora.

1.6   Study Area

Kenora is a small city in northwestern Ontario, Canada, located 30 miles east of the Manitoba border and 36 miles north of the Minnesota border (*How to Get Here* n.d.) (Figure 2). The population of the city is 15,348 and the population of the whole Kenora District, which includes the city, adjacent villages, First Nations and Treaty 3 territory is 57,607 (Statistics Canada 2012). Kenora is situated on the north shore of Lake of the Woods, being one of the communities that sit along the 65,000 miles of shoreline of the lake (*Lake of the Woods* n.d.)

Rich with natural resources, Kenora region has been a center of human activity for hundreds of years. Since the first Europeans arrived in the area in the late 17th century, the region has become a busy industrial and trade center, specialising in timber products. During the 18th century, Kenora was the scene of intense rivalry in the fur trade between the Hudson's Bay and North West Companies, as well as a boundary dispute between Manitoba and Ontario. The first paper mill began operating in Kenora in 1923 (*History and Culture* n.d.) and was closed down in 2005 due to the global financial crisis, leaving 390 employees without a job (City of Kenora n.d.). Today, Kenora has become

"prominent in the tourism, lumbering, mining, milling, and commercial fishing industries" (*History and Culture* n.d.).

Figure 2: Location of Kenora. Map data © 2013 Google.

1.7   Study Community and the New Prototype

Local residents of Kenora District represented the main study community of my research, however the target audience of the prototype was Kenora youth. High-school students in Kenora are considered to be a natural culturally diverse group, which suited the context of this research. Also, they are the next generation of Kenora. Changing the cross-cultural relationships among them could potentially change the future of the community.

As for research participants, all local Kenora residents were welcome to take part in this research project at different stages, as will be explained in the following subsection (1.8 General Methods). The participants were given the chance to contribute

to the design and content of the new interactive interpretation experience prototype through their participation.

The prototype was designed as an outdoor activity/game for the outdoor education program students in Kenora high schools, who would visit the Lake of the Woods Discovery Centre. It has four parts: pre-instruction in the classroom, plant-treasure-hunt game at the Lake of the Woods Discovery Forest, a search for local plants in the Kenora area, and an interactive students' photo exhibit that could be displayed at the Lake of the Woods Discovery Centre gallery.

1.8   General Methods

With phenomenology as my guiding philosophical worldview, I employed a qualitative research design and a case study strategy of inquiry. This research is an exploratory case study of the design of a fun, interactive interpretation tool with potential to improve cross-cultural relationships. I found Kenora District as a suitable choice due to two main reasons. First, it has a long history of complicated cross-cultural and social relations. Second, The City of Kenora's decision to invest in Lake of the Woods Discovery Centre marked its intention to search for a possible solution to the city's problems in interpretive tourism (Paterson 2012). It is a positive approach that avoids tackling the problems directly – the same approach I took in this research project.

Two main data collection strategies were utilized in this research: semi-structured individual and group interviews, and real-world case analysis. For the analysis of the real-world cases I used information in the public domain. Research participants for the semi-structured interviews were local residents of Kenora District from different cultural backgrounds (Anishanabe, Métis and Canadians of non-Aboriginal heritage).

There were two phases of data collection: Pre-prototype-design phase and post-prototype-design phase. The data collected during the first phase assisted me in designing the prototype, whereas the data from the second phase provided feedback on the prototype. The first phase of data collection was comprised of: (1) semi-structured interviews with local residents of Kenora about local plants; (2) real-world case analysis, and (3) a semi-structured group interview with two high school teachers from Kenora.

Guided by the Bio-Cultural Design conceptual framework and based on the data collected through the interviews and the case-studies examination, I proposed a design of a new prototype of interactive interpretation experience for the Lake of the Woods Discovery Centre, as noted in my third objective. I built a mock-up of the prototype and showed it to research participants in order to receive their feedback. Participants' feedback was gathered during the second phase – the post-prototype-design data collection phase. This phase was comprised of: (1) a group interview with outdoor education students from a Kenora high school, and (2) a semi-structured interview with their outdoor education teacher. Their feedback was used to improve the prototype and collect ideas for its possible future development.

With the completion of the research, the suggested prototype along with a hard copy of the thesis will be submitted to the Lake of the Woods Discovery Centre and Kenora high schools. I will also present the prototype and my research conclusions and suggestions in a public forum organized by the Common Ground Research Forum and at an academic conference, if feasible.

1.9 Thesis Organisation

The rest of this document is organized as follows: **Chapter 2** provides the theoretical context for this research, which is comprised of three main subject areas: Bio-Cultural Design, interpretation, and fun and play. **Chapter 3** presents a detailed description of the methods employed in this research. The data collection strategies are depicted in light of the chosen strategy of inquiry and my worldview as a researcher. The design and construction of the proposed prototype are described in detail. **Chapter 4** summarizes and analyzes the data from the interviews and the case-studies examination. **Chapter 5** reveals the design of the new prototype of interactive interpretation experience, accompanied by detailed descriptions and screen-shots of a mock-up. **Chapter 6** presents the feedback for the prototype, collected through a group interview with students and a separate interview with their teacher. **Chapter 7** includes a summary of the study, conclusions and recommendations. The final version of the prototype is attached in Appendix E.

CHAPTER TWO: LITERATURE REVIEW

"According to Gadamer, old meanings are recovered and new meanings emerge,
in the interaction between co-interpreters, their traditions and the thing being interpreted."
Heritage and Hermeneutics: Towards a Broader Interpretation of Interpretation
Philip G. Ablett & Pamela K. Dyer (2009, 226)

The aim of this research was to create a tool to facilitate a meaningful, interactive interpretive experience to help improve cross-cultural relationships among the youth of Kenora District, Ontario. This chapter presents the theoretical context in which the research was designed. The first section (2.1) introduces the conceptual framework of Bio-Cultural Design and briefly reviews its origins. The second section (2.2) provides background on interpretation and addresses the transformation the field has undergone over the past and current centuries. The third section (2.3) discusses the important roles that fun and play have in our lives, and the numerous benefits of games. The last section (2.4) presents a brief summary of the chapter.

2.1   Bio-Cultural Design: A Breath of Fresh Air

Change is an inseparable part of the ever dynamic, unpredictable and fast-paced reality in which we live. It is a very complicated matter – it holds both loss and gain; change presents both challenge and opportunity. Whenever a community, or a society, faces a problem, it is always due to a change – whether it attempts to address the change or refuses to acknowledge it. Mostly, communities' immediate reaction to a change is trying to resist it by putting huge efforts into preserving the status quo and sometimes even trying to bring back the past (Maffi 2001; Nelson & Stolterman 2003). A classic example is the abundance of conservation programs and projects that exist nowadays (Maffi 2001).

This desire to preserve and conserve is understandable; it is hard and at times frightening to let go of the familiar in exchange for the unknown, especially when culture, heritage and livelihood are at stake. Culture and heritage are considered to be the keystones of societies and communities. Individuals rely on and cherish their biocultural heritage because it comprises their identity, reflects their history, distinguishes them from others and guides their way of living (Nelson & Stolterman 2003; Hirsch & Macdonald 2007; Davidson-Hunt et al. 2012).

Another way to deal with change is to accept it. Based on his research into the behaviour of past civilizations, the noted British historian A. J. Toynbee argued that the best way for a society to deal with change is to engage in it and radically transform the existing. In other words, Toynbee suggested that in order to succeed in a constantly changing and dynamic reality, societies must embrace the change without looking back (Nelson & Stolterman 2003). Though radical, his approach is logical in the sense that ignoring change will not make associated problems disappear.

Luckily, there is no obligation to take radical measures in either direction. In fact, managing a dynamic reality requires an equally dynamic and highly flexible approach. The conceptual framework of Bio-Cultural Design embodies these characteristics. As mentioned in chapter one, Davidson-Hunt et al. (2012) define Bio-Cultural Design as "an intentional, collective and collaborative process by which individuals with a diversity of knowledge and skill sets engage in a creative process of designing products and/or services" (Davidson-Hunt et al. 2012, 39). The goal of Bio-Cultural Design is to make it possible for "communities to create and deploy solutions to contemporary challenges that reflect their desires, values and aspirations" (Davidson-Hunt et al. 2012, 39).

Bio-Cultural Design has the potential to enhance the adaptive capacity of societies and communities in coping with the dynamic, ever-changing reality (Davidson-Hunt et al. 2012). But prior to examining its mechanisms, a brief look at its origins is necessary.

2.1.1 BCD Recipe: Mix Biocultural Diversity with Design, and Keep Stirring

The Bio-Cultural Design (BCD) conceptual framework enhances communities' abilities to deal with change and meet the challenges it brings. By drawing from and combining the fields of biocultural diversity and design, Bio-Cultural Design declares past and future as equal; it recognizes the equally important roles that both biocultural heritage and innovation play in our lives (Davidson-Hunt et al. 2012).

Measures of biocultural diversity "document, compare and analyze the linkages between biological, linguistic and cultural diversity across regions and over time and became a transdisciplinary framework for both scholarship and action" (Davidson-Hunt et al. 2012, 36). Today, biocultural diversity is perceived as "the total variety of the world's cultures and natural environments" (GDF 2006) – a definition formulated by the Global Diversity Foundation.

In the middle of the 20th century, scholars researching biocultural diversity were interested in understanding the relationship between natural, cultural and linguistic diversity (Davidson-Hunt et al. 2012). But throughout the decades, biocultural diversity became increasingly influenced by the powerful and popular conservation sphere. It was interpreted and defined in terms of conservation, and portrayed as rooted in and dependent upon it (Harmon 1996; Maffi 2001; Maffi 2005; Maffi & Woodley 2010). As a result, biocultural diversity was framed in the context of "loss". Biocultural diversity loss in all its forms – endangered species, depleting resources, dying languages and

disappearing cultures - was widely documented and described in detail, while conservation was pictured as the ultimate solution and prevention of further loss (Harmon 1996; Nations 2001; Maffi 2005; Cocks 2006; Maffi & Woodley 2010).

Recently, the contextualisation of biocultural diversity in terms of loss and conservation has been critiqued on the grounds of its failure to acknowledge the adaptive capacity of cultures. Cocks (2006) argues that despite good documentation and description of biocultural diversity loss over time, emphasizing loss and conservation does not address the dynamic processes of adaptation within cultures and all sectors of the global population (Cocks 2006).

But how can one distinguish a process of loss from a process of natural adaptation? Or is it a matter of perspective? A Foucaultian approach "puts practices of remembering and forgetting in the context of power relations, focusing not only on *what* is remembered and forgotten, but *how*, *by whom*, and with *what effects*" (Medina 2001, 9). This approach highlights how crucial it is to ensure that all the different voices will be heard and all the perspectives represented. The voices that are heard are from those who hold the power; those who decide what would be marked as loss and what as adaptation; those who control what should be remembered and what might be forgotten. Needless to say, the power balance in the global arena is uneven. The voices of many communities are rarely or never heard. Lately, it has been suggested that a design approach has the power to improve that balance (Davidson-Hunt et al. 2012; Carey 2011; Brown 2009; Nelson & Stolterman 2003).

Design is often perceived as an art; a field in which artistic people express themselves and unleash their creative imagination. But creativity is just one among other

equally important qualities that comprise design (Nelson & Stolterman 2003; Brown 2009). Design is about the ability to introduce innovation without compromising heritage (Nelson & Stolterman 2003; Carey 2011). It is both intuitive and inspirational, but also purposeful and practical (Nelson & Stolterman 2003; Brown 2009). In fact, "design is such a natural human ability that almost everyone is designing most of the time – whether they are conscious of it, or not" (Nelson & Stolterman 2003, 1).

Whether done by a single individual or through a collaborative effort, design is a unique process through which an idea is conceived, and given "form, structure and function" (Nelson & Stolterman 2003, 1). This research highlights the collaborative, rather than individual, approach to design. This approach creates a "new participatory social contract" (Brown 2009, 178) that balances between creative innovation and diverse biocultural heritage by encouraging and maintaining an ongoing conversation, in which all voices are heard (Nelson & Stolterman 2003; Brown 2009; Carey 2011; Davidson-Hunt et al. 2012).

2.1.2 Compositions of Co-Existence

As mentioned in the Introduction, in this research, Bio-Cultural Design is viewed as a composition of co-existence. It is important to note that a composition of co-existence may be a process, as well as an outcome of a process. In both cases, the composition is a result of a collaborative and flexible process. The atmosphere that Bio-Cultural Design creates is supportive and dynamic; it invites everyone to participate by contributing their skills, knowledge and unique perspective on a certain issue. But even when a working solution is reached, it is not to be perceived as a permanent one (Davidson-Hunt et al. 2012).

The process of Bio-Cultural Design is endless and ongoing because reality is dynamic and constant change is inevitable. A solution is relevant only for a certain situation in a certain time and space. Before a solution is reached, numerous drafts of potential compositions should be revised by all of the involved sides. Once a specific solution is adopted, it should be constantly revised, and if needed, adjusted according to the changing circumstances (Davidson-Hunt et al. 2012).

2.2   Interpretation: Then and Now

In the field of natural and cultural interpretation, numerous definitions have been suggested in the literature, but not one has been universally accepted (Poria, Biran & Reichel 2009). In 1976, Interpretation Canada defined *heritage interpretation* as "any communication process designed to reveal meanings and relationships of cultural and natural heritage to the public, through first hand involvement with an object, artifact, landscape or site" (Interpretation Canada n.d.). Nevertheless, according to Interpretation Canada, while the definition above is commonly referred to today, there is no single definition that can entirely capture the vibrant practice of interpretation (Interpretation Canada n.d.). The main reason for that is the constant evolution and development of the interpretation field, which mirror the changes occurring in society over time (Ballantyne & Uzzel 2011).

Looking back to the nineteenth century, the early form of interpretation could simply be described as "transmission of information from the presenter to the viewer" (Poria, Biran & Reichel 2009, 93; Ablett & Dyer 2009). It was a one-way interpretation where the interpreter was regarded as a professional with absolute authority, while the

visitors were seen as passive consumers of the communicated information (Poria, Biran & Reichel 2009; Ballantyne & Uzzel 2011).

But as time passed, and society changed, so did interpretation practice. To keep up with the "experience economy" and the "experience society" interpretation had to make more room for the visitor and his or her personal background, which included life experiences, perceptions, knowledge and interests (Brown 2009; Poria, Biran & Reichel 2009; Ballantyne & Uzzel 2011). The visitor's role became more active and the interpretation experience more interactive (Poria, Biran & Reichel 2009).

For example, the change in the definition of *museum* over the last seven decades illustrates the transformation that the field of interpretation is undergoing. In 1946, the International Council of Museums (ICOM) was established and proposed the following definition of museum: "The word "museums" includes all collections open to the public, of artistic, technical, scientific, historical or archaeological material, including zoos and botanical gardens, but excluding libraries, except in so far as they maintain permanent exhibition rooms" (ICOM n.a.). Fifteen years later the definition was slightly modified, but reflected the same idea: "ICOM shall recognise as a museum any permanent institution which conserves and displays, for purposes of a study, education and enjoyment, collections of objects of cultural or scientific significance" (ICOM n.a). It was in 1974 when the International Council of Museums introduced a new concept in its museum definition: "A museum is a non-profit making, permanent institution in the service of the society and its development, and open to the public, which acquires, conserves, researches, communicates, and exhibits, for purposes of study, education and enjoyment, material evidence of man and his environment" (ICOM n.a). The latest

definition of museum by ICOM – and the one that is being used as a reference in the international community – was formed in 2007. It describes a museum as "a non-profit, permanent institution in the service of society and its development, open to the public, which acquires, conserves, researches, communicates and exhibits the tangible and intangible heritage of humanity and its environment for the purposes of education, study and enjoyment " (ICOM n.a).

Prior to further discussing the modern, visitor-centered interpretation, a closer look at the foundations and evolution of the field is mandatory.

2.2.1 Once Upon a Time

Natural and cultural interpretation in North America originated in the nineteenth century. Initially, it began as a conservation movement in the US. Many nature writings that were produced by the movement's members inspired and influenced the foundation of interpretation as practice and profession (Ablett & Dyer 2009). One of the big names in that movement was John Muir (1838-1914), who was the first to express the importance of communicating meanings to visitors, and not just settling for scientific accuracy and dry facts (Gross & Zimmerman 2002; Ablett & Dyer 2009).

The person who is recognized as the first environmental interpreter, and the establisher of interpretation as a practice, is Enos Mills (1870-1922), Muir's protégé (Regnier, Gross & Zimmerman 1994; Gross & Zimmerman 2002; Ablett & Dyer 2009). As a teenager, Mills already was guiding visitors to the Colorado Rockies. But it was his keen interest in nature and contagious enthusiasm that made him the ultimate interpreter. Over the course of his thirty five year career, Mills became a naturalist, nature guide, lecturer, interpreter, trainer of interpreters and author of fifteen books about nature

(Regnier, Gross & Zimmerman 1994). Drawing on Muir's legacy, he taught his students to "see with the heart as well as an accurate eye" (as quoted in Gross & Zimmerman 2002, 271). Mills described nature guiding as "more inspirational than informational (as quoted in Gross & Zimmerman 2002, 271), and a nature guide as being a "leader rather than a teacher" (as quoted in Regnier, Gross & Zimmerman 1994, 2). As for the interpretation experience, "his writings stress the need for direct immersion of the visitor in the natural environment to awaken a sense of wonderment; leading to deeper understanding" (Albett & Dyer 2009, 212).

But perhaps the main reason Mills was crowned as the "father" of interpretation, is the fact that he was the first to establish professional standards and principles, and organize the profession of interpretation (Regnier, Gross & Zimmerman 1994; Gross & Zimmerman 2002). Throughout his career he analysed his interpretation with visitors, trying to understand which techniques worked best and why (Regnier, Gross & Zimmerman 1994). Shortly before his death he published his last book – *The Adventures of a Nature Guide* – his ultimate guidebook for the interpretive profession (Gross & Zimmerman 2002).

Although by the time of Mills' death nature guiding had become a flourishing national movement and interpretation – an established profession (Gross & Zimmerman 2002), without Mills around, the practice had gone astray. Inspiration, enthusiasm and spontaneity have gradually faded away, while technicality and scientific accuracy became more prominent (Regnier, Gross & Zimmerman 1994).

Interpretation regained its meaningful, inspirational side only in the late 1950's (Regnier, Gross & Zimmerman 1994; Gross & Zimmerman 2002). The U.S. National

Park Service invited Freeman Tilden (1883-1980), an experienced newspaper reporter, playwright, non-fiction writer, and keen observer and commentator (Regnier, Gross & Zimmerman 1994), to write about the National Parks and "analyze what was happening with interpretation" (Regnier, Gross & Zimmerman 1994, 3). Tilden took on the challenge and traveled the parks for several years, carefully observing the communication between park professionals and the visitors (Regnier, Gross & Zimmerman 1994; Gross & Zimmerman 2002). Based on those observations and his keen insight gained from them, in 1957, Tilden published *Interpreting Our Heritage* – a book devoted solely to the definition of the interpretation profession (Regnier, Gross & Zimmerman 1994; Gross & Zimmerman 2002; Ablett & Dyer 2009).

Tilden drew on Mills' earlier writings and reintroduced interpretation as "an educational activity which aims to reveal meanings and relationships through the use of original objects, by firsthand experience, and by illustrative media rather than simply to communicate factual information" (Tilden 1977, 8). He also outlined two central philosophical concepts according to which, "interpretation is the revelation of the larger truth that lies behind any statement of fact" (Tilden 1977, 8) and it "should capitalize on mere curiosity for the enrichment of the human mind and spirit" (Tilden 1977, 8). But for the most part, the book focuses on the six principles developed by Tilden that, according to him, stand at the base of any environmental interpretation (Regnier, Gross & Zimmerman 1994; Gross & Zimmerman 2002). Ablett and Dyer provide a concise summary of these principles:

> Interpretation (1) must relate what is displayed to the experience of the visitor; (2) is revelation rather than information; (3) is a teachable art; (4) provokes rather than instructs; (5) relates parts to an underlying whole and that (6) children will need a qualitatively different interpretive approach from adults.
>
> Ablett & Dyer 2010, 212

Until this day, Tilden's six interpretation principles remain fundamental in any interpretation teaching program, and are considered to be classics in the interpretation literature (Gross & Zimmerman 2002; Ablett & Dyer 2009). Still, from time to time there are various attempts to add to or expand on Tilden's principles. One example is approaches that see interpretation as a critical education tool, designed to expand the visitors' environmental awareness. Or approaches that see interpretation as a potential management tool for controlling visitors' behaviour. But none of those approaches was successful enough to stick around. Perhaps it was due to their guide-centred model, which portrayed the visitor as passive (Ablett & Dyer 2009).

During the 1990's, the active visitor began to enter the picture. At first, the visitors' voice could be heard only post factum; they could "speak" to the institution through a visitors' comments notebook or the suggestions-box (Smith 1999). But very soon, it became clear that visitors never arrive as blank slates. Even if they are completely unfamiliar with the site, landscape, or the subject at focus, they perceive and experience the interpretation based on their pre-existing worldviews, cultures, personal backgrounds and other previous life experiences. The visitors are, and always have been an inseparable part of the interpretation process (Gross & Zimmerman 2002).

Veverka (1994) writes that "good interpretation comes from the heart and soul of the interpreter" who is always committed to search for a better way of meeting the needs of the visitors" (1994, i). But what if the thing that the visitors need most is to be recognized for their significant and active role in the interpretation process? In that case, the interpreter must think about "what interpretation can be instead of what it has been"

(Veverka 1994, iii), and not to be afraid to "try new things" (Veverka 1994, iii), such as visitor-centred approach to interpretation.

2.2.2   Open to Interpretation

The visitor-centred approach to interpretation has a fairly self-explanatory title. But there is so much more to it besides simply focusing on the visitor and satisfying his, or her, selfish need for recognition and attention. This dynamic approach views the visitor as an integral part of interpretation, playing both active and passive roles; simultaneously affecting and being affected by it (Poria, Biran & Reichel 2009).

In order to properly understand visitor-centred interpretation, it is important to first mention heritage culture, as described by Smith (1999). According to Smith, "heritage culture is composed of a dynamic interrelationship between dominantly high culture and dominantly popular culture" (Smith 1999, 136). He defines *high culture* as "a type of text which gives central importance to pedagogy and the idea of the authenticity of the heritage object" (Smith 1999, 136). *Popular culture*, in contrast, in his view "refers to texts that do not privilege the object, that demonstrate foregrounded awareness of their own construction and their relationship to other texts, and are oriented to visitor participation and interaction" (Smith 1999, 136). Hence, not only does popular heritage culture take the visitor into account, it also depicts heritage as a process of which the visitor is an inseparable part (Smith 1999; Gross & Zimmerman 2002). Drawing on that, it is only logical for a visitor to be considered as a part of heritage interpretation.

As mentioned in the previous sub-section (2.2.1), individuals never approach interpretation as clean slates. Interpretation necessarily occurs in a context, which is generally rooted in interpreters' and visitors' personal backgrounds. Our culture,

nationality, language, social status, education, religion, hopes, beliefs and previous experiences – all comprise our unique "backgrounds of pre-understandings" (Ablett & Dyer 2009, 226) that influence the way we approach and interpret everything around us (Ablett & Dyer 2009). In a way, "the world (both natural and cultural) is always already pre-interpreted as we reflect upon it" (Ablett & Dyer 2009, 217).

For example, Ablett and Dyer (2009) describe how differently we might interpret a tree. Based on our previous encounters with trees, we all can instantly and easily recognize one. But when it comes to the meanings we give a certain tree, we will notice differences that reflect our past experiences. For instance, someone might focus on the tree's biological and botanical classification. Another person might be interested in the historical or political context related to the particular tree (Ablett & Dyer 2009). Some people might have romantic memories related to that tree and others may simply appreciate its aesthetical value.

But the big question is how these different and possibly conflicting meanings can co-exist in harmony? Smith (1999) argues that visitor-centred interpretation encourages the production of pluralist texts. By fostering heterogeneity, eclecticism and diversity, popular heritage culture welcomes various interpretive possibilities and thereby supports and encourages pluralism (Smith 1999). Interpretation literature supports this philosophical idea by indicating that visitors to heritage sites seek a variety of experiences and are interested in heritages other than their own, as well as in hearing diverse interpretations of those heritages (Poria, Biran & Reichel 2009).

The richness of multiple interpretations often raises the interpretation experience to a whole new level of meaningful social experience (Smith 1999; Proris, Biran &

Reichel 2009). Or as Smith (1999) puts it, "one of the core experiences of visiting a heritage space is of being there with others, and bringing to the space knowledge of many other spaces" (Smith 1999, 135). But such concepts as "knowledge" and "learning" do not necessarily need to have purely educational meaning in the context of interpretation (Smith 1999; Gross & Zimmerman 2002). Instead, "learning can be conceptualized as the integration and the interaction of the personal, socio-cultural and physical contexts" (Gross & Zimmerman 2002, 274). This kind of learning demonstrates the value of visitor-centred interpretation to society. When the visitor is at the centre of attention, naturally, his (or her) personal background is included as well. Diverse points of view, beliefs, understandings and misunderstandings, stories and experiences, and even current "hot" social issues are brought to the table of interpretation and are looked at from numerous and various angles (Ballantyne & Uzzel 2011). By letting the visitor into the spotlight, and allowing the co-existence of diverse interpretations, visitor-centred interpretation has the potential to facilitate emotional and intellectual connections between visitors and heritage meanings (Gross & Zimmerman 2002). Ames (1992) cleverly described this potential as follows:

> Ideally interpretation helps us gain not just knowledge, but that rarer and more precious commodity, wisdom. Interpretation does not just inform us but pushes us to a deeper and more subtle understanding of some aspects of the world around us.
>
> Ames et al. 1992, 314

Finally, it is important to notice the role of "experience economy" and "experience society" in the emergence of visitor-centred interpretation. Nowadays, museums, discovery centres and other heritage sites face a tough competition against various entertainment sites and activities. The entertainment industry treats the visitor as the client, puts him, or her, at the centre of attention,

and promises to deliver the "wow" factor (Brown 2009; Ballantyne & Uzzel 2011). In order to keep up with the competition and win the average visitor's interest and attention, modern interpretation does not have much choice but to put the visitor in the spot light as well, and to do it in a playful manner (Smith 1999; Ballantyne & Uzzel 2011).

2.3   Fun and Play: Game On

In childhood, playfulness, fun and games constitute an important part of most individuals' lives. Little children tend to play everywhere and with everything: their toys, their food, and even empty boxes and shopping bags. In preschool, games and play still dominate the daily schedule. But in the school system, those things are gradually eliminated. Playful behaviour is labelled as inadequate, irresponsible, inappropriate and even foolish (Brown 2008). People are taught that games are for little children – not for serious adults. Some are even told that games are a complete waste of time (Brown 2008; McGonigal 2012).

The Oxford dictionary confirms this perception by defining the idiom *play games* as "deal with someone or something in a way that lacks due seriousness or respect" (Play Games n.d.). Still, designers, gamers, scholars and other "game advocates" refuse to conform, insisting that play is important and games are a serious business (Brown 2008; Brown 2009; Hromek & Roffey 2009; Tomlinson & Masuhara 2009; McGonigal 2010; McGonigal 2012). To quote Tim Brown, CEO and president of IDEO,[7] "It's not an *either/or*; it's an *and*. You can be serious and play" (Brown 2008).

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[7] "IDEO (pronounced "*eye*-dee-oh") is an award-winning global design firm that takes a human-centered, design-based approach to helping organizations in the public and private sectors innovate and grow"--as stated on the company's website: http://www.ideo.com/about/

In fact, according to ancient Greek history, 2500 years ago, the very first game was created in order to deal with and overcome a very serious problem. It was an ancient dice game, invented in the kingdom of Lydia during a time of a severe famine. People were starving, suffering and fighting; the conditions were extreme, and required an extreme solution. So a kingdom-wide policy was set, according to which, people would eat on one day, and play games on the next. In this way, they managed to survive for 18 years (McGonigal 2010).

Recently, more and more organizations, companies and even governments are creating or using games in order to support and promote causes, and to inform, influence, teach and reach people (Brown 2008; Brown 2009; Raphael et al. 2010). Why is this shift taking place? Are they playing games with us or is it serious? Anyhow, games are making a comeback and it is important to understand what they have to offer, and how we can benefit from them. In the context of this research, I focus on games as an organized form of play, and explore their potential to create fun and positive atmosphere (Raphael et al. 2010).

Jane McGonigal, a gamer and a game designer, believes that while playing a game, we "become the best version of ourselves" (McGonigal 2010). The game is a safe and fun environment, where everyday problems, duties and stress do not exist (Hromek & Roffey 2009; McGonigal 2010). It is important to stress that in the context of this research the element of fun in a game is paramount. A fun atmosphere is responsible for positive thinking, emotions and behaviour (Hromek & Reffey 2009). And it is a positive attitude that allows the "best version of ourselves" to emerge and take charge. Some authors claim that while engaged in a game, individuals become far more optimistic,

inspired, motivated, creative, cooperative and collaborative. They are not embarrassed to ask for help and are ready to help others at a moment's notice. They even deal differently with failure; instead of becoming frustrated, depressed and anxious they simply recalculate and try again (Brown 2008; Hromek & Roffey 2009; McGonigal 2010; McGonigal 2012).

Another advocate of games is Right To Play – "a global organization that uses the transformative power of play to educate and empower children facing adversity" (Right To Play n.d.). Right To Play was founded in 2000, by Johann Olav Koss – a four-time Olympic gold medalist – who believes that "the power of play can transform a child's life" (Right To Play n.d.). At their website, the organization explains the importance of play:

> The UN recognizes play as the right of every child. Play is not a luxury; it is a tool for education and health. It can bring entire communities together and inspire every individual. A game of football can teach children about tolerance and peace, a game of tag can teach about malaria. Play helps teach important life lessons and develop skills like cooperation, leadership and teamwork.
> Right To Play website; "At a Glance"

Of course, games and play are not always fun and the outcome is not always positive. Unfortunately, there are violent games and games that encourage violence. For example, a growing body of research makes the case that playing violent video games increases aggressive behaviour and decreases empathy (Anderson et. al. 2010; Sestir & Bartholow 2010; Hasan et. al. 2013). Also, there is research on violent physical play. For some, it is a fun and enjoyable activity; for others – not at all (Searle & Brayley 1993; Benenson, Carder & Geib-Cole 2008). It is also important to acknowledge the fact that sometimes uncontrollable circumstances occur and outcomes become unpredictable. For example, a sudden change of weather or a technical breakdown of one of the game parts

might decrease the level of fun that the game players would have had otherwise, or even prevent them from playing the game altogether. But in the context of this research, I concentrated on the positive aspects of playing games. I did not intend to introduce or provoke any form violence. On the contrary, the intention was to create a positive atmosphere.

The unique positive atmosphere that a game creates does not benefit a single player alone (Hromek & Roffey 2009; Tomlinson & Masuhara 2009). Unless designed for a single player, a game, or a playful activity, is considered to be a social activity. While playing a game, the players are engaged in a meaningful social interaction with each other. Each player brings his, or her, individual socio-cultural background into the game. The mosaic of the diverse backgrounds shapes the game session and its outcome (Ekman et al. 2012). When a positive atmosphere is prevailing, the game fosters a meaningful, multidimensional social experience. Not only is having fun together a bonding experience, it can develop mutual trust, tolerance and empathy (Hromek & Roffey 2009; Tomlinson & Masuhara 2009). People tend to like other people better after playing a game together, even if they lose (McGonigal 2010).

Another notable benefit of games is the therapeutic effect that they have on people (Hromek & Roffey 2009; McGonigal 2012). As opposed to post traumatic stress, playing games can help people experience post traumatic growth. That is to say, games can help individuals to overcome traumatic events in their lives, learn from them and become stronger and happier (McGonigal 2012). Whether or not games have the same effect on society is yet to be determined. But there is plenty of evidence proving that games are a powerful platform for change (McGonigal 2010).

Just as a game can be open to multiple, different players, it can be open to multiple, diverse interpretations (Raphael et al. 2010). While playing a game, the players share a mutual experience. But at the same time, each player experiences the game session in his, or her, own, individual way (Ekman et al. 2012). A game can "move players to see how their individual actions relate to larger… structures" (Raphael et al. 2010, 226) and it can "inspire critical reflection on history and politics and how they are represented" (Raphael et al. 2010, 200). Games contain and encourage multiple and diverse viewpoints – it is all part of the game (Raphael et al. 2010; Ekman et al. 2012).

So what are the rules that we are playing by? Do they allow playfulness? Do they legitimize games? Tim Brown argues that "we need rules to help us break old rules and norms" (Brown 2008). In that case, defining *game* as a rule-based, organized play is absolutely spot on (Raphael et al. 2010). Games, fun and playfulness deserve a respectable place in the serious, adult world, and we deserve to enjoy the benefits they offer. Taking into account all the aspects that were discussed in this chapter, I came up with a working definition of *game* that is in line with the context of this research: a *game* is a fun, multi-dimensional social interaction, defined by certain rules and goals.

2.4   Summary

This chapter presented the theoretical and conceptual foundations of my research. It began with the presentation of Bio-Cultural Design – a new conceptual framework that guided me throughout this research. Afterwards, a background on interpretation was presented, including detailed examination of the modern, visitor-centred form of interpretation. Following that, numerous benefits of game-playing were outlined, and the importance of fun and playfulness discussed.

Some scholars believe that "genuine interpretation can never be manipulated or imposed. It is always in the process of becoming a process that professional interpreters can facilitate but not force" (Ablett & Dyer 2009, 226) – just like the infinite compositions of co-existence in the Bio-Cultural Design conceptual framework. This research contributed to interpretation practice and literature by suggesting a new set of compositions of co-existence that balances between a fun, visitor-centred approach to interpretation and an appreciation for diverse heritages, aiming at cross-cultural sustainability.

Also, this research made a direct and concrete contribution to the residents of Kenora District. Cross-cultural relationships in Kenora are a community identified research priority. The new prototype of a fun, interactive interpretive experience has the potential to improve the cross-cultural relations among Kenora youth. Along with a copy of this research, the prototype will be submitted to the Lake of the Woods Discovery Centre and the outdoor education program in Kenora high schools for future use.

CHAPTER THREE: METHODOLOGY

"To truly interpret something
we have to dare to suggest what it means."

Heritage and Hermeneutics: Towards a Broader Interpretation of Interpretation
Philip G. Ablett & Pamela K. Dyer (2009, 226)

This study was designed with a qualitative research approach. Qualitative design enables an inductive research style, which acknowledges the complexity of socio-cultural research and concentrates on individual meanings (Creswell 2009).

As a researcher, I am drawing on a phenomenological philosophical worldview. Phenomenology, interpretive in particular, is about the exploration of lived experiences and their diverse meanings (Kim 2001; Lopez & Willis 2004; Conklin 2007; Starks & Brown 2007; Flood 2010). It emphasises the "how", rather than the "what" (Kim 2001, 89), that is to say, it calls attention to the way people experience something, rather than to what they consciously know about it (Flood 2010).

I found phenomenology suitable for this research because it views interpretation as inherent to human existence, and because it calls for constant reinterpretation (Flood 2010), encouraging one to approach everything and everybody "in a radical spirit of openness to (their) potential for new or richer meaning" (Flood 2010, 8). Drawing on Heideggarian interpretive phenomenology, Flood (2010) argues that "humans are embedded in their world to such an extent that subjective experiences are inextricably linked with social, cultural and political contexts" (Flood 2010, 9). Conklin (2007) reinforces this socio-cultural context of phenomenology:

> We live in a social world. And in phenomenology, we are situated alone in this social world with the responsibility and freedom to "see the world again, for the first time" and then to reflect on it to discover our meanings and the essence of experience. It is within this social context that the process of understanding

others begins, and in doing so, we may discover the hidden potential, the possibility, the unique among the gray swath of daily experience"

<div align="right">Conklin 2007, 284</div>

Along these lines, a phenomenological worldview fits the socio-cultural focus of this research, its purpose and objectives.

The methodological approach of this research was also influenced by a number of trips to Kenora in 2011. In fact, the first time that I was exposed to Kenora and its history was during a class field trip to the area. The trip was a part of a Natural Resources Institute graduate course – Human Dimensions of Natural Resources and Environmental Management – taught by Dr. Iain Davidson-Hunt. Eye-opening and inspiring, the field-trip led me to engage in the Common Ground Research Forum project. In summer of 2012 I held a meeting with Dr. Davidson-Hunt and Heather Paterson - Director of the Lake of the Woods Discovery Centre. After discussing the nature and the potential of this research proposal idea, a decision to move forward with this project was made. Following that, a short proposal was approved by the Common Ground Research Forum executive committee.

3.1   Strategy of Inquiry

Choosing the right strategy of inquiry is crucial, because the implementation of a certain strategy influences the research outcomes (Starks & Brown 2007). This research followed the guidelines of case study, which is a strategy of inquiry that seeks to explore an issue or a problem through a study of a real-world example within a bounded system (Creswell 2007). A case study is considered to be a good choice when the researcher has already targeted a clearly identifiable and bounded case (Creswell 2007). Typically, a case study's purpose is to produce a holistic description and explanation of a particular

issue. It involves systematic collection of information on the particular issue, using various data collection procedures, which enables the researcher to understand the case and describe it in detail (Berg 2004). Although this research came together due to a clearly identifiable and bounded case, it is not a typical case study. Rather than producing a rich description of the problem, this research aims to bridge the gap between theory and practice, by proposing a preliminary prototype of a possible solution. Therefore, the purpose of this case study was to create a tool to facilitate a fun, interactive interpretive experience that would have the potential to improve cross-cultural relationships among the residents of Kenora District. It was carried out based on a clear understanding of the particular case.

When using a case study strategy of inquiry, the exact type of a case study must be determined, based on three aspects. First, a decision regarding the number of cases – multiple or single case study – must be made (Yin 1994). Usually, this is determined by the research question or the purpose of the research (Berg 2004). Since this research focuses on the cross-cultural relationships among the residents of Kenora District, it is a single case study. Aside from the research purpose there are other rationales for conducting an individual case study. One is when the case is considered to be special or unique (Yin 1994). I consider this case unique. Of course, the people of Kenora District are not the only community with a history of poor cross-cultural relations. But communities within this district expressed a willingness to look for a solution to their problems in interpretive tourism by investing in a local discovery centre – the Lake of the Woods Discovery Centre (Paterson 2012).

Another reason for conducting an individual case study is when it is viewed as a prelude to a possible larger study (Yin 1994; Berg 2004). That is to say, an individual case study is a suitable choice in exploratory research. This research was, in fact, an exploratory case study that aimed to explore, describe and present a potential solution to the cross-cultural issues in Kenora District. A design of a new prototype of an interactive interpretation experience for the Lake of the Woods Discovery Centre might open the way for further research in this direction (Yin 1994; Berg 2004). Yet, exploratory research should have a method to judge the success of the exploration (Yin 1994). For that reason, following the design and presentation of the new prototype, I conducted a group interview with students and a separate interview with their teacher to discuss and review the prototype. More information on these interviews is provided in subsection 3.4 of this chapter.

The third aspect concerns the purpose of the case study. Stake (1994) and Berg (2004) argue that sometimes it is impossible to draw a solid line between instrumental and intrinsic case studies due to the multiple interests that the research represents (Stake 1994; Berg 2004). This research is a combination of both an instrumental and an intrinsic case study. On the one hand it is instrumental, because it aims to provide insight into broader issues of modern, visitor-centred interpretation and its potential contribution to cross-cultural relations in general. But on the other hand, it is intrinsic in the sense that the research focuses on the Kenora District case, seeking to understand it, and design the most suitable prototype for it (Stake 1994; Berg 2004; Creswell 2007). In this way, this research is an individual exploratory case study that incorporates both instrumental and intrinsic research directions.

Generalizability and objectivity are commonly mentioned as shortcomings of a case study strategy of inquiry (Berg 2004; Creswell 2009). It is often argued that a case study has very limited generalizability and therefore, its outcomes and conclusions rarely can be applied to different settings (Creswell 2007). But in fact, as a qualitative strategy of inquiry, a case study aims to provide a deep understanding and a rich description of a particular case or issue (Berg 2004, Creswell 2007). A case study may also provide a general understanding of similar cases, but not in a quantitative, simplified manner (Berg 2004).

As for objectivity, Berg (2004) argues that the term is "closely linked with reproducibility" (Berg 2004, 258). Meaning, objectivity is about the researcher's ability to provide the most accurate documentation and the clearest description of the research design, procedures and outcomes, in order to make it possible for others to reproduce a similar research in the future (Berg 2004). This description of objectivity fits my research, since it is an exploratory case study. It is my intent to inspire further research in this direction. Therefore, I clearly articulated every stage of this research.

3.2   Pre-Prototype-Design Data Collection Procedures

As outlined in the General Methods subsection (1.8) of the first chapter, I employed two main data collection procedures: semi-structured single and group interviews, and real-world case analysis. The data were collected during two phases – before and after the design of the prototype. Semi-structured interviews, case analysis and a group interview with two teachers were conducted during the pre-design phase, as the design drew from the information collected through them. Hence, this sub-section is devoted to the three pre-prototype-design data collection procedures. The group interview

with the students and the interview with their teacher were the post-prototype-design data collection phase. Accordingly, they will be discussed in section 3.4. The overview of the research sequence can be seen in Figure 3.
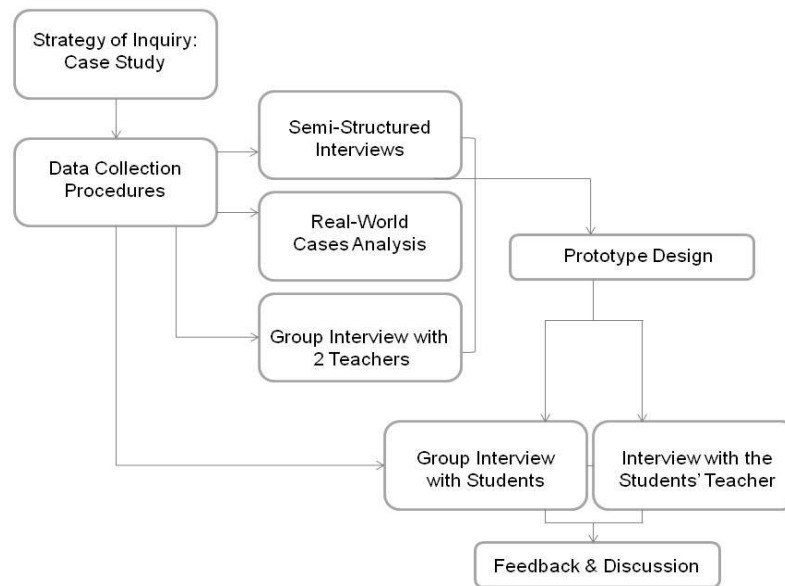
Figure 3: Research Sequence. © 2013 Inna Miretski, University of Manitoba

3.2.1 Semi-Structured Interviews

In the beginning, semi-structured interviews were conducted with 13 knowledgeable individuals from Kenora District; one interview per informant. Potential informants were identified with the help of the Aboriginal Curriculum Coordinator of the Kenora Patricia District School Board as well as other partners of Common Ground Research Forum. Snowball sampling was employed as well. Participation in the semi-structured interviews did not have any exclusion criteria other than the requirement to be an adult Kenora District resident. According to the aim and spirit of this research, it was important to ensure that participants from all three cultural backgrounds (Anishanabe,

Métis and Canadians of non-Aboriginal heritage) were given the opportunity to participate and to contribute their individual knowledge and stories to this project.

The interviews were carried out by a research assistant hired by the Common Ground Research Forum executive committee. Each interview lasted between 30 to 60 minutes, depending on the number of plants that the interviewees chose to address and on the level of detail they chose to go into. Since all plants were addressed during the interviews, there was no need to supplement with scientific literature. All interviews were audio recorded and transcribed.

The main purpose of the interviews was to gather a diversity of stories, experiences and knowledge about the local 25 plants. It is important to note that Lake of the Woods Discovery Centre chose the 25 plants in order to allow for diverse interpretation and not based upon any particular scientific principles. These plants are representative of iconic tree species that people see in the forest of Lake of the Woods and of rare habitats that are unique to the region (Davidson-Hunt 2012). Another important purpose was to pay respect to the interviewees and their individual knowledge by making their knowledge an integral part of the project (Dunn 2005). The semi-structured interview format fits these purposes because it "has some degree of predetermined order but still ensures flexibility" (Dunn 2005, 80) and therefore, allows a more natural conversation flow (Dunn 2005).

Prior to their interviews the participants were informed of the research context and the main purpose of the interviews, as stated above. Also, they were asked to sign a form granting their consent for me to use their stories as content in the plant-treasure-hunt game. In the case of this research, I decided to share the context of the research with

the interviewees, because it could help them to better frame their stories and the descriptions of their experiences (Hand 2003).

Usually, semi-structured interviews involve the use of interview guides that include a general list of topics to be covered during the interview (Dunn 2005). In this research, in addition to an interview guide, a number of predetermined questions were implemented (Berg 2004; Dunn 2005). The topics in the interview guide drew mainly from a literature review describing the Lake of the Woods forest habitat and mentioning the scientific, Ojibwe and common English names of the featured plants.[8] The emphasis was on topics such as traditional uses of the listed plants, cultural meaning of the plants, food recipes and other experiences related to the plants. The list of sample questions that were used is attached in Appendix A.

Six main story types emerged out of a qualitative content analysis of the interview data: factual, personal, traditional, personal-factual, traditional-factual, and personal-traditional. Given the diversity of the stories, such a categorisation allowed for the design of treasure-hunt trails with highly eclectic content that reflected traditional, factual and personal perspectives on the local plants. The definitions of the six story types appear in section 4.3.

3.2.2 Real-World Case Analysis

Parallel to the interviews I conducted an analysis of six cases from the real world that demonstrate the use of interactive, participatory and fun strategies currently used by various institutions, organizations and companies. Some use these strategies to support causes or raise awareness; others – to attract visitors or customers and to sell products.

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[8] The literature review summary was prepared by a research assistant for Common Ground Research Forum and Lake of the Woods Discovery Centre.

Either way, those strategies mirror the modern trend of the "experience society". In order to accentuate the extent of the trend, the cases represented different niches in society – commerce, politics and peace, art, fashion and environment. The cases were chosen according to four attribute-based criteria: interactivity, celebration of diversity, consumer/visitor participation, and fun. Each case had to meet at least three out of the four criteria. The definitions of the four criteria appear in section 4.1.

For example, one case from the environment sphere looked at the *student activity trails[9]* that are suggested by the Te Papa Tongarewa Museum of New Zealand to its young visitors. Each activity trail includes various fun activities for students that help them to better explore and experience the museum. Another case came from the fashion sphere and looked at a permanent section in Marie Claire fashion magazine that is called *What I Love About Me[10]*. The section publishes photos of real-world, non-model women from around United States of America. The aim of the section is to celebrate natural and diverse beauty, so the American readers of the magazine are each invited to send their own photo with a short description of a trait that they love most about themselves.

Drawing on the literature review chapter, and on my personal experience as part of the "experience society", I carefully analysed each case, identifying the relevant criteria and describing its manifestation. At a later stage, I utilized the findings by incorporating the four criteria into the design of a new prototype of interactive interpretation experience for the Lake of the Woods Discovery Centre.

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[9] http://www.tepapa.govt.nz/Education/OnlineResources/SGR/Pages/Studentactivitytrails.aspx
[10] http://www.marieclaire.com/hair-beauty/trends/women/

3.2.3 Group Interview with Outdoor Education Teachers

A semi-structured group interview with two outdoor education teachers – one from each Kenora high school – was conducted. Similar to the semi-structured interviews that were described in subsection 3.2.1, I used an interview guide, as well as a number of predetermined questions (Appendix A). The aim of this group interview was manifold. First of all, the interview helped me to get familiarized with the existing outdoor education program; comprehend the overall program structure, its possibilities and limitations, and get a grasp of the current activities and games it offers the students. Secondly, I hoped to receive the teachers' input and advice regarding activity and game design. I believed that their expertise as outdoor education teachers and their rich local experience would be an invaluable asset. Finally, I wanted to give the teachers an opportunity to express their desires and hopes for possible future developments and additions to the outdoor education program. I wanted to hear their personal opinions on what they would like to see in the prototype that I was designing. The semi-structured interview was an excellent tool for accomplishing these goals, because it allowed flexibility while keeping the interview on the right track (see Dunn 2005).

I chose to interview two outdoor education teachers, each from a different high school, in order to receive a more complete picture of the program. Two professionals from the same field may have different experiences or different views on some issues. Alternatively, they may reinforce each other's statements, which is equally important. The decision to conduct a group interview, as opposed to two separate ones, was made because this type of interview allows two levels of communication: interviewer-interviewee and interviewee-interviewee. This adds another dimension to the interview –

group dynamics. When there is group dynamics, the participants are more likely to stimulate each other throughout the interview, responding to each other, giving feedback, reminding the other participant of something important, and remembering a valuable piece of information thanks to the other participant's stimulation (Frey & Fontana 1991). On the other hand, some individuals might feel uncomfortable in expressing their thoughts and ideas in front of others. Also, sometimes individuals might influence the opinions of the other group members (Frey & Fontana 1991). In order to minimise these potential risks, I was sensitive to the group dynamics, encouraged all participants to express their opinions, and explained that all views and perceptions are welcome and there is no "right answer."

3.3   Prototype Design

Following the completion of the interviews (3.2.1 and 3.2.3) and the real-world case analysis (3.2.2), I proceeded to design a new prototype of interactive interpretation experience for the Lake of the Woods Discovery Centre. Guided by the Bio-Cultural Design conceptual framework, the design drew from the information gathered throughout the first phase of data collection, as well as from concepts discussed in the literature review chapter: visitor-centred interpretation, and games and fun.

The prototype was designed as an outdoor activity/game that could easily be incorporated into the outdoor education program at Kenora high schools. The information, input and suggestions that the outdoor education teachers provided during our group interview influenced the design of the prototype. For instance, properly understanding matters such as students' preferences, school regulations and financial restrictions allowed me to create a prototype that would fit the specific local needs and

possibilities. A more specific example is the first part of the prototype – Pre-instruction in class. During the pre-instruction the students are taught about the local plants included in this activity. According to the outdoor education teachers, pre-instruction in class would save time and resources; during the school year, the schools can afford just one trip to the Lake of the Woods Discovery Centre and preparing the students in advance would make this trip both more fun and efficient.

The stories about the local plants collected through the interviews made it possible for me to understand the nature and amount of content available for creating an outdoor activity/game for high school students. In my opinion, it is impossible to design an activity or a game without having the content first. In addition, through the content of the collected stories I was able to verify that the 25 local plants that were chosen can be found in the wild, outside of the Lake of the Wood Discovery Forest. This allowed me to create the third part of the prototype – Find in the Wild – where students search for the 25 plants outside the Discovery Forest.

The design of the second and fourth parts of the prototype – Plant-Treasure-Hunt and Photo Exhibit, respectively – was inspired mainly by the data collected through the real world case analysis. Each case demonstrated different uses and manifestations of the four attribute-based criteria that I chose: interactivity, celebration of diversity, consumer/visitor participation, and fun (see subsections 4.1 and 4.4). For example, the real-world cases of Geocaching, Wall of Fame and Te Papa Museum of New Zealand Student Trails inspired me to create a plant-treasure-hunt game. The cases of The Wall of Freedom, Marie Claire's What I Love About Me section and Dove's Show Us Your Skin campaign inspired me to design a participatory students' photo exhibit. In each real-

world case I looked for elements that meet the four chosen criteria and looked for ways to adopt them into the prototype. In this way, utilising the data collected during this phase I designed a beta version of the prototype.

3.4   Post-Prototype-Design Data Collection Procedures

As opposed to the previous three data collection procedures, the aim of this phase was to gather feedback on the new prototype (the beta version), rather than information for designing it. Therefore, it was carried out after the prototype was designed. This phase contained a semi-structured group interview with Kenora high school outdoor education students and a separate semi-structured interview with their outdoor education teacher, who had participated in the group interview during the pre-prototype-design phase.

3.4.1   Group Interview with Students

I conducted one group interview with 10 outdoor education students from St. Thomas Aquinas High School in Kenora. This high school was chosen due to the availability of the outdoor education teacher and students, and their willingness to participate in this research. I was the moderator of the group, but received the help of the research assistant. I used an interview guide, which included discussion topics, a number of formulated questions and a general outline of the interview sequence. The outline, discussion topics and questions appear in Appendix A.

As for the participants of this group interview, high-school outdoor education students were invited by their teacher to volunteer for the study and to take part in one group interview session. Outdoor education teachers were contacted through connections with the Common Ground Research Forum partners. The students selected to participate

were those who had expressed a keen interest in the project, and who brought diverse and unique perspectives to the discussion. All participation was voluntary. The exclusion criteria for the group interview sessions' participants drew from the aim of the research, which was to propose a prototype design that would have the potential to improve cross-cultural relations among the youth of Kenora District. This meant the target audience of the prototype was youth. High-school classes are considered to be a natural culturally diverse environment, which suited the context of this research.

At the first stage I presented the beta version of the prototype to the students. Then I facilitated a group discourse about it, aiming to discuss its strengths, shortcomings and potential. Group dynamics are an eminent advantage of a group interview as the informal group discussion atmosphere creates a safe environment where the participants feel free to speak candidly and express their true opinions or even controversial ideas (Berg 2004). The group setting "places participants on a more even footing with each other and the investigator" (Berg 2004, 127), therefore, it creates a power balance that marks each voice as equally important. The dynamic energy of a group discussion encourages the participants to react to each other's comments. In this way, "a far larger set of ideas, issues, topics and even solutions to a problem can be generated through a group discussion than through individual conversations" (Berg 2004, 124). As already mentioned in subsection 3.2.3, there are some potential downsides to a group interview, such as pressure to conform or fear of talking freely in front of others (Frey & Fontana 1991). I addressed these issues by creating a friendly and comfortable atmosphere; I chose a neutral location for the group interview, provided refreshments, began the session

with a friendly introduction, and I explained that there was no "right answer", therefore all opinions and ideas were welcome.

The group interview was audio recorded and transcribed. Additionally, an assistant made notes of the experience, based on her observation of the process. The gathered feedback is described in chapter six and implemented in chapter seven – discussion and summary – and the final prototype, as appears in Appendix E.

3.4.2   Interview with an Outdoor Education Teacher

I conducted one semi-structured interview with one of the two outdoor education teachers who took part in the group interview during the first phase of data collection. First, the teacher was shown the prototype presentation and then he was asked to provide his feedback on it. As a professional with local experience, the outdoor education teacher's feedback greatly contributed to this project, especially given his participation in both pre- and post-prototype-design data collection phases. I decided to interview him separately from his students, so that his role as a teacher would not influence the students' statements and answers during their group interview. Similarly to the group interview with students, this interview was audio recorded and transcribed, and the gathered feedback is described in chapter six and implemented in chapter seven and the final prototype version.

3.5   Feedback and Discussion

The feedback received from both interviews is described in chapter six. It is classified into three groups: positive aspects of the prototype, improvement suggestions and possible future development, and a summary of the classification is offered. Following that, the feedback is incorporated into the final prototype version, discussed

and presented in chapter seven – the last chapter. A summary of the research is accompanied by recommendations for future development and research.

3.6   Dissemination

With the completion of the research, the preliminary prototype along with a hard copy of the thesis will be submitted to the Lake of the Woods Discovery Centre. A synopsis of the research, including conclusions and future suggestions, will be prepared in a form of a poster, which will be presented in a public forum organized by the Common Ground Research Forum. Following that, the poster will be disseminated across Kenora in the appropriate public spaces. Additionally, a digital copy will be uploaded to the Common Ground Research Forum website.

CHAPTER FOUR: PRE-PROTOTYPE-DESIGN DATA COLLECTION

*"The stars mean different things to different people.
For some they are nothing more that twinkling lights
in the sky. For travelers they are guides. For scholars
they are food for thought. For my businessman they
are wealth. But for everyone the stars are silent.
Except from now on just for you…"*

The Little Prince
Antoine De Saint-Exupéry (1943, 100)

In this chapter, data collected throughout the pre-prototype design phase are described and analysed. The first section (4.1) examines six cases from the real world that demonstrate the use of interactive, participatory and fun strategies that promote or support a certain cause. The information from the group interview is presented in the second section (4.2). The third section (4.3) describes the stories that were collected through the semi-structured interviews. The final section of this chapter (4.4) contains the analysis of the data collected so far and presents a summary.

4.1   Real World Cases

In this section, I examine six cases from the real world that demonstrate the use of interactive, participatory and fun strategies that promote or support a certain cause. In each sub-section, I provide a brief description of a case and look for expressions of at least three out of the following four attributes: interactivity; celebration of diversity; consumer\visitor participation; and, fun. Whether a certain attribute is expressed or not, is decided based on the following working definitions of these attributes:

Interactivity – A responsive, two-way communication that allows users to participate in modifying the form and content of a mediated environment in real time, so that the output depends on users' input (Downes & McMillan 2000).

Celebration of Diversity – Encouragement of harmonious co-existence of the world's total variety of tangible and intangible elements, concepts and forms[11].

Visitor/Consumer Participation – An opportunity for an individual to partake in an action or creation of a certain institution[12][13].

Fun – An enjoyable and entertaining activity that inspires positive atmosphere[14].

4.1.1 Wall of Freedom: Use Your Freedom to Promote Ours

URL: http://www.useyourfreedom.com/

Case Description:

The Wall of Freedom is an interactive website in support of Aung San Suu Kyi's – Burma's First Lady of Freedom – Human Rights cause. Aung San Suu Kyi, a Nobel Peace Prize Winner, is the leader of the democratic movement in Burma. She campaigns for a non-violent democratization and liberation of her country from the military dictatorship that has been ruling for over 20 years. The wall of freedom invites people from all over the world to support the cause by joining the virtual wall.[15]

Based on an original artwork of contemporary American graphic designer Shepard Fairey, the website features a pixelated portrait of Aung San Suu Kyi. Each pixel

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[11] Based on my working definition of *biocultural diversity* in chapter one and Global Diversity Foundation's definition of *biocultural diversity*: http://www.globaldiversity.org.uk/biocultural-diversity
[12] Based on Online Oxford Dictionary's definition of *participation*: http://oxforddictionaries.com/definition/english/participation?q=participation
[13] In the context of this research, by *institution* I mean any company, corporation, business, public or private organization, foundation or association or any other possible type of public or private establishment.
[14] Based on Online Oxford Dictionary's definition of *fun*: http://oxforddictionaries.com/definition/english/fun?q=fun
[15] The Wall of Freedom website - Homepage: http://www.useyourfreedom.com/

is a photo of an individual who visited the website and decided to express her, or his, solidarity by uploading a photo of themselves in the The *Abhaya*-Mudrā position – left hand raised, symbolizing "protection, peace, benevolence and the dispelling of fear"[16]. While each visitor's photo becomes a pixel in the portrait of The Lady, anyone who scrolls over the portrait can see the enlarged individual photos of the participants. In addition, any visitor who submits a photo may add her, or his personal definition of freedom, which will appear next to their photo on the wall.

Case Attributes:

Interactivity – The Wall of Freedom was designed as an interactive website, the aim of which was to raise awareness and call for solidarity with Aung San Suu Kyi's Human Rights cause. The solidarity is expressed through modifying the content of the Lady's digital, pixelated portrait by the website visitors who upload their own photographs that subsequently become the pixels of the portrait. Each visitor's input affects the output; the more photographs are submitted, the more different pixels construct the Lady's portrait, and the more support and solidarity are expressed.

Celebration of Diversity – In this case, celebration and encouragement of diversity takes place on several levels. The Lady's portrait consists of photographs of different people, from different parts of the world, different cultures and different personal backgrounds. All those different people are part of one portrait; they all express their support for democracy – a form of government that allows diversity, unlike the current military regime in Burma. And finally, anybody who submits a photograph, may also submit her, or his, own definition of freedom, which reinforces the concept that everyone is different and has the right and freedom to be such.

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[16] The Wall of freedom website - Homepage: http://www.useyourfreedom.com/

Visitor Participation – the opportunity to express their solidarity with the Lady's cause and become part of the Wall of Freedom is open to everyone. This case includes both participation in action – the Use your Freedom campaign – and in creation – the Lady's digital, pixelated portrait.

4.1.2   The Wall of Fame

URL: http://wall-of-fame.com/

Case Description:

The Wall of Fame is an interactive, real-time drawing board. It was created by Edding – a Germany-based, global marking pen manufacturing company – to celebrate its 50th birthday.[17] Placed on the company's website, the Wall of Fame is directed at Edding's customers from around the world, but not limited to them – it is open to everyone.

The visitors of the Wall of Fame are invited to express their individual creativity and viewpoint by drawing on the interactive board, using a variety of virtual Edding Markers that appear on the sidebar. The space of the drawing board is unlimited, and currently it contains over 250,000 drawings. While every illustration is digitally immortalized, the website team constantly monitors the board's content and retains complete control over it. This is aimed at eliminating any offensive content in the drawings or the comments. The Wall of Fame also has a Facebook page, where some drawing from the wall are published, various discussions are led and announcements about more added drawing space are made.[18]

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[17] Edding – Official website: Company History: http://www.edding.com/company/brand/history/
[18] Edding | Wall of Fame – Facebook page: https://www.facebook.com/pages/Edding-Wall-of-Fame/328268517218085

In 2012, Lürzer's Archive – international advertising magazine – described the Wall of Fame as "the most elaborate piece of collaborative art the world has seen".[19]

Case Attributes:

Interactivity - The Wall of Fame was designed as an interactive website. The essence of the website is the ongoing modification of its content and form by its visitors. The input of every visitor influences the output; every new drawing or text changes both the content of the digital wall and its size - the more drawings are created, the more new space is needed and subsequently added. Each time a new drawing is added, the Wall of Fame continues to evolve as a piece of collaborative art.

Celebration of Diversity – Every visitor is invited to freely express her, or his, unique creativity and individual point of view on any subject. Therefore, the Wall of Fame consists of countless different drawing styles, themes and texts, all neighbouring each other, and even tangled together. The co-existence of these different works of art in one place allows the existence of the Wall of Fame.

Visitor Participation – The opportunity to participate in the ongoing creation of the Wall of Fame is open to everyone, at any time and a person can take advantage of this as many times as she, or he, wishes.

Fun - Both drawing on the digital wall and exploring the other existing drawings and texts is an enjoyable and entertaining activity. When using the website, individuals have an opportunity to join this incredible collective work of art by expressing their creativity, talent and viewpoint. The lack of restrictions on the drawing process and the amount of drawing adds to the fun. Alternatively, site visitors can choose to delve into the artwork

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[19] Lürzer's Archive magazine online: http://goo.gl/A7SNl

and enjoy the wealth of ingenuity and virtuosity found there. Either way, Wall of Fame gives its visitors an entertaining and diverting experience.

4.1.3   What I Love About Me - Marie Claire Magazine

URL: http://www.marieclaire.com/hair-beauty/trends/women/

Case Description:

What I Love About Me is a permanent, reader-participatory section in Marie Claire – an American fashion magazine. The section presents photographs of American women, who are not models or celebrities, and is dedicated to the celebration of natural and diverse beauty. Every month, the magazine chooses a city in the United States and invites women who live there to feature in the section, which appears both in digital and printed editions. On some occasions the magazine sends a team to photograph and interview random women on the streets of a particular city. On other occasions, women of the announced city are invited to send their photographs, along with a short description of a trait they love the most about themselves, to the magazine editors. For example, Maria Francisca Triulzi from Aspen, Colorado says: "I'm always smiling. Nothing makes me feel more beautiful". Suzanne Saedi from Columbus, Ohio says: "The 5-inch scar on my elbow represents my mischievous childhood. My minor imperfections make me totally unique."

Case Attributes:

Celebration of Diversity – The fashion industry has always been known for dictating a very strict ideal of beauty. Very few fit this ideal, and even for those who do their images are often subject to being digitally altered, or "Photoshopped". But the truth is that natural beauty is diverse; a tall and slim figure is only one variation among endless

possibilities. Yet, the massive advertising and promotion of the modern fashion industry create a very narrow definition of beauty that affects people's perceptions of themselves and of others. Publishing a section like What I Love About Me in an influential fashion magazine is an important step towards acknowledging and appreciating the diversity of natural beauty. Currently, no other major fashion magazine has a similar section.

Consumer Participation – Marie Claire magazine invites American women of all ages to take part in the What I Love About Me section. Moreover, the existence of this section depends upon the voluntary participation of a wide range of consumers. By submitting their photograph, they become part of the What I Love About Me mosaic of natural beauty.

Fun – I consider it a fair assumption that women who participate in the What I Love About Me section do not do that strictly out of altruistic motives, such as supporting diverse, natural beauty. Having your photograph published in a major fashion magazine can bring a great deal of joy to many women, and inspire and encourage more women to submit their photographs as well.

4.1.4   Dove: Show Us Your Skin

URL: http://www.dove.us/Products/Bar-Body-Wash/Show-Us-Your-Skin.aspx

Case Description:

In 2012, Dove – a personal care brand – came out with its first living-ad campaign, titled Show Us Your Skin. Primarily aimed at promoting the brand's skin care products, the campaign also celebrated the diversity of "real women", who "come in all

shapes, sizes, colors and ages," encouraging them "to have the confidence to show off their beautiful skin."[20]

The central part of the campaign was the digital photo-mosaic in the shape of the Dove logo that consisted of ever-rotating photographs of "real women." Show Us Your Skin invited women from around the world, age 18 and above, to join the campaign by submitting their own photo that best displayed their beautiful skin. No proof of purchasing or using Dove products was required in order to partake in the campaign. All submitted photographs were to appear in the campaign, given that their content was appropriate and approved by the Dove brand. Women whose photographs were not approved were encouraged to resubmit.

In addition the interactive Dove photo-mosaic, the submitted photos were to appear in digital and non-digital Dove ads across the US, on a Times Square billboard in New York and in the campaign's digital photo-gallery on its website that still exists and is searchable.

Case Attributes:

Interactivity – Dove's Show Us Your Skin is a product's promotion campaign that utilizes an interactive consumer-photo-gallery as its main tool. The campaign celebrates the beautiful skin of "real women", who "come in all shapes, sizes, colors and ages," suggesting that the use of Dove products contributes to the beauty of their skin. By submitting their own photo and becoming part of the campaign, the women support the idea behind it. The success of the campaign – the output – largely depends on the consumers', or participants', input. The amount of the submitted photos reflects the

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[20] As stated in Dove's Show Us Your Skin campaign website—FAQ section:
http://www.dove.us/Products/Bar-Body-Wash/Show-Us-Your-Skin.aspx

degree of support, and the diversity of the photos strengthens the brand's stated appreciation of natural, diverse beauty.

Celebration of Diversity – As previously mentioned, Dove brand supports natural and diverse beauty, acknowledging that "real women come in all shapes, sizes, colors and ages". Therefore, Dove does not only use models in this campaign, but invites all women to participate, modeling their natural beauty. The outcome is a huge online photo-gallery, where photos of completely different women appear side by side, celebrating diverse, natural beauty, and of course, promoting the Dove brand.

Visitor Participation – The Dove brand presented women from all over the world with the opportunity to appear in its first living-ad campaign, including in its digital and non-digital Dove ads across the US, and on a Times Square billboard in New York. Participation was not restricted to Dove consumers, which allowed massive participation that both reflected immense support for the Dove brand and allowed a vast expression of diversity.

Fun – Similar to the What I Love About Me Case (4.1.3), here as well I assume that women who took part in the Show Us Your Skin did that not only out of altruistic motives, such as supporting diverse, natural beauty. Having your photograph featured in an international, successful brand adds can bring a great deal of joy to many women.

4.1.5   Geocaching

URL: http://www.geocaching.com/

Case Description:

Geocaching is a real-world, outdoor treasure hunt game, where players navigate to a given set of GPS coordinates in order to find a hidden container, called geocache.

The game is played all over the world and is open to everyone. As stated on the geocaching.com landing page, "there are 2,020,368 active geocaches and over 5 million geocachers worldwide". A basic geocache usually includes a container with a log-book and items to trade. The GPS coordinates of all geocaches are listed online at geocaching.com.

Playing the game is free of charge. In order to get started, one has to have a GPS enabled device and has to register for a free basic membership at geocaching.com. Once the membership is activated, the players need to visit the "Hide and Seek a Cache" page on the geocaching website in order to locate the nearest geocaches in the desired area. Following that, the player has to choose one geocache, click on its name to reveal its coordinates, and enter them into the GPS device. Then, the player is all set to go outside and look for the geocache.

When the geocache is discovered, the player must sign in the log-book found inside the geocache container. If the player decides to take an item from the container, she, or he, must leave another item instead of it, of equal or greater value. Eventually, the player must return the geocache to its original location and re-hide it exactly as it was found. All players are encouraged to share their geocaching experiences, stories and photos online, at geocaching.com.

Geocaching also has advanced levels of playing and participating. For instance, players may not only seek geocaches, but also create and hide new ones. Another example is geocaching premium membership. For a fee, premium members enjoy features such as advanced maps, a trip planner, instant notifications, VIP caches, access to statistics and more.

Case Attributes:

Interactivity – In this case, interactive communication is expressed and experienced differently than in the previous four cases. Part of it happens online, on the geocaching.com website, through discussions, questions, comments and sharing of information regarding the game such as experiences and photographs. The other part of the interactive communication happens offline, during the game itself. The players find caches that were prepared by someone else, exchange items from those caches and sometimes even create their own caches. In geocaching, interactive communication takes place on various levels and in different ways. Still, the success and popularity of the game – the output – depends on the players' input. For instance, when exchanging items in discovered caches, if players would have not replaced an item with an equally valuable item, but instead, with a less valuable one, the game would have probably lost its popularity due to a growing number of disappointed players. Another example is the vast online sharing platform that exists on geocaching.com. The effectiveness of the online interactive communication has a direct influence on the game's popularity and success.

Visitor Participation – Geocaching presents its players with both the opportunity to partake in the action – playing the game – and the creation – the ever ongoing modification of the game. The ongoing modification includes not only the creation of new caches, but also the modification of caches' content during the game play.

Fun – The fun aspect is very important in Geocaching. The game encourages people to leave the comfort of their familiar indoor environments in order to explore and enjoy the outdoors. For many players it is a diverting and exciting experience. They enjoy the search, the discovery of the cache container and its contents, and they take pleasure in

completing the challenge. The players are also encouraged to log onto geocaching.com and share their experiences online, so that other players will benefit from their information and new people will join the game.

4.1.6   Te Papa Tongarewa Museum of New Zealand: Student Activity Trails

URL:

http://www.tepapa.govt.nz/Education/OnlineResources/SGR/Pages/Studentactivitytrails.aspx

Case Description: "Te Papa is New Zealand's national museum, renowned for being bicultural, scholarly, innovative, and fun."[21] The museum views itself as a member of the local community. Therefore, its "key goal is to represent and appeal to New Zealand's diverse society."[22] Te Papa museum offers a wide range of interactive exhibits, hands-on activities, dynamic events and engaging education programs. Student Activity Trails is one of them. As the name suggests, these activity trails are designed especially for school age children visiting the museum with their class or parents. Prior to arriving at the museum, the visitors may go online and choose from a selection of nine different trails, as they appear on the museum's website. Each trail is available for download as a PDF file that needs to be "printed on A3 paper, then folded to create a booklet."[23] The activity trails address various historical, cultural and biological topics. And in order to allow the visiting students to better understand these topics, each trail contains various hands-on, fun activities and tasks. For instance, "Bush City" trail gives the students a "chance to look at, listen to, and even to touch some special plants and animals of Aotearoa New

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[21] About Te Papa: http://www.tepapa.govt.nz/AboutUs/Pages/AboutTePapa.aspx
[22] Ibid.
[23] Student Activity Trails:
http://www.tepapa.govt.nz/Education/OnlineResources/SGR/Pages/Studentactivitytrails.aspx

Zealand."[24] Some of the activities this trail contains include identifying different plants, drawing their leaves and comparing their features. Another trail – "Blood, Earth, Fire" – sends the students "on a journey that tells the dramatic story of how people have made their homes in Aotearoa New Zealand."[25]

Case Attributes:

Celebration of Diversity – As mentioned above, the key goal of Te Papa museum "is to represent and appeal to New Zealand's diverse society." Therefore, the celebration of diversity stands in the centre of the museum's essence and is expressed through both content and the delivery of the content to the visitor. In this case, the content of Student Activity Trails is very diverse; it covers biological, cultural and historical topics. Such eclectic content reflects the diverse society of New Zealand and its rich heritage very well. The delivery of the content happens through visitor-centred interpretation – a method that acknowledges each visitor's unique personal background and allows for individual interpretation to take place, alongside the classic, traditional interpretation.

Visitor Participation – Each Student Activity Trail is a participatory, hands-on experience. The goal of the trails is to engage the students; to get them to actively take part in the exploration of a certain trail.

Fun – The museum created the Student Activity Trails in order to turn the exploration and interpretation processes into an enjoyable experience. Instead of merely listening to interpretations and reading signs the students get the chance to create, express their individual view points and complete various tasks. The trails engage and entertain the students and through that, create a positive atmosphere.

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[24] Ibid.
[25] Ibid.

4.2   Group Interview: Outdoor Education Teachers

Two teachers from Kenora high schools participated in this interview: Martin Straight – a science teacher and former outdoor education teacher at Beaver Brae Secondary School – and Steve Mastromatteo – an outdoor education teacher at St. Thomas Aquinas High School. The teachers gave an overview of the outdoor activities and games currently included in their school's curriculum (4.2.1) and outlined their main content (4.2.2). The role, influence and uses of social media in this context were discussed (4.2.3). Finally, the structure and design of the existing outdoor program was discussed, while suggestions for a design of a desired new outdoor activity/game were made (4.2.4).

4.2.1   Outdoor Activities and Games

During the outdoor education classes, the students currently learn about wilderness survival, camping and outdoor skills, and engage in outdoor activities, such as sports and games. Some examples of outdoor activities mentioned by Martin and Steve were skiing, snowshoeing, canoeing, trail building, and games, such as scavenger hunts, man tracker, capturing the flag, hide and seek, medic and camouflage. Both teachers agreed that the students enjoy spending time outdoors. Martin said that, "teachers try to have students do more outdoor games." Neither teacher recalled any problems or conflicts associated with or during the outdoor activities. Martin stated that during his classes "students were happy, engaged."

4.2.2   Activity and Game Content

As mentioned in the previous subsection, many of the outdoor education activities focus on wilderness and winter survival techniques. For example, Martin mentioned that,

"during the various field-trips, students learn to build an ice-house and sleep in it." As for incorporating local plants in the outdoor activities and games, Steve said that although botany is not his field of expertise as an outdoor education teacher, he teaches students about various plant uses. "We have a patch of Labrador Tea out behind the school, and a patch of Wintergreen, so we teach about making tea from these," said Steve. Martin mentioned that in his school, during scavenger hunts, students look for specific plants or animals. He added that he would be happy to have the students explore trails and wilderness areas around the school to look for local plants.

4.2.3 Social Media

Both teachers agreed that the high-school students are heavy users of social media. Although the use of mobile devices is prohibited in class, when students become bored they often disobey and engage in online Facebook and Twitter activities. Martin shared that "it's a battle to pull them (students) off social media apps." But lately, schools are becoming more comfortable with the idea of incorporating social media in their programs. For example, during some outdoor education classes students are allowed and even encouraged to use their mobile devices to take pictures outside. Both Martin and Steve support the idea of using existing social media applications and networks in outdoor education programs.

4.2.4 Activity/Game Structure and Design

To facilitate understanding of what is feasible in terms of a new game design, the teachers described the existing structure of the outdoor education program. As soon as classes begin, the students take part in various group-building activities, the aim of which is to introduce the students to each other and to accustom them to team work. Each

instructional period lasts 76 minutes. The students have 4 or 5 field trips, usually in the winter and into the spring. Each field trip lasts approximately half a day. Steve mentioned that due to financial restrictions they must limit the number of field trips they take. Therefore, each year they will likely be able to take only one trip to the Lake of the Woods Discovery Centre for the purposes of the new game or activity.

Both Martin and Steve mentioned that most students prefer to be in the field without immediate supervision of their teachers. Steve said that, "they (the students) like some autonomy, taking a few minutes to themselves, not being overly supervised - being in an environment that is controlled but not overly supervised." Martin agreed, stating that, "they (the students) like to be alone in the nature, without immediate supervision... they like to be able to take ownership of the activity." He added that both high schools have wild lands adjacent to them that are suitable for this purpose and that part of the new game or activity could be practiced there.

The teachers suggested that it would be good to introduce the students to the new outdoor activity/game early in the year in order to be more time efficient. For example, teaching them the material about the local plants in the classroom might maximize the time spent at the Lake of the Woods Discovery Centre on a field trip, because most of the instruction would take place beforehand, in class. In Steve's words: "(I)t might be better to teach them the material in the classroom, then have them visit the site to test and apply their pre-acquired knowledge." Also, Marty proposed incorporating existing social media networks and applications and to get them going early on. That, in his opinion, would encourage the students to "keep their eyes open for these plants." Steve thought that this kind of pre-instruction might also prompt competition. He said that "if students see their

friends connecting to the course content... if they see their peers engaged...students will be more likely to feel challenged... and thus complete the assignment."

Finally, Steve mentioned his preference for simple designs of outdoor activities/games for students. He stated that "the "4 pics, 1 word" application[26] is so popular, yet so simple. Don't ever think you are making something too simple. Simple is really great."

4.3   Semi-Structured Interviews

Thirteen adult,[27] local residents of Kenora area were interviewed. They were shown a list of the featured 25 local plants (Appendix B) and were asked to share any stories or information about the plants they were familiar with. Prior to the beginning of each interview, the participants were informed that the collected data would be used as content for a plant treasure hunt game – a project being developed for the Lake of the Woods Discovery Centre.

The participants came from diverse cultural backgrounds: two participants were Anishanabe, six were Métis and five were the descendants of the settler community. Eight participants were female, while five were male. Twelve out of thirteen participants chose to use their real name, while only one preferred a pseudonym. This information emphasizes the willingness of the community's representatives to share knowledge and collaborate, and their open support for this project.

A majority of twenty-four plants out of twenty-five were widely addressed in the interviews. The only plant that most of the participants did not have any specific information or story about was the Western Silvery Aster. Only one participant, Clarke

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[26] A mobile application where a person has to discover one common element among four images.
[27] Above the age of 16.

Anderson, had a general remark about this plant: *"The aster, I have no knowledge about [that] one, other than most of the asters around here, the deer eat them in the fall particularly and through the snow in the winter."* The rest of the participants did not recall encountering the Western Silvery Aster. This was not surprising, since "the Western Silvery Aster is protected under the federal *Species at Risk Act* (SARA)"[28] and is considered 'threatened' under the act, while under provincial law it is viewed as 'endangered'.[29] The rest of the plants were discussed at some length during the interviews; several stories[30] about each plant were told by different participants. A complete list of stories appears in Appendix C.

The participants shared various stories about the local plants. Six main story types emerged out of a basic content analysis – all equally important, interesting and suitable to serve as content in the plant treasure hunt game. The first type is a *factual story* - a story that is based on or contains facts about the plant's traits and known uses. For instance, one of the participants, Clarke Anderson, shared this factual story about the White Spruce:

> (I)t's not quite as strong as the black spruce… it wasn't quite as good for pulp wood. It grows faster. It's straighter. Especially the big long straight ones made very good logs for building houses, you know, if you had a thick place where it was growing nice and straight.
>
> Clarke Anderson 2013

The second type is a *personal story* - a story that describes a personal experience, memory, subjective knowledge or an anecdote about a plant. A good example is Barb Fobister's story about the Red Pine and her son:

> (T)here (were) red pines that I had in my backyard. My son, when he was a little boy, he used to wish he could climb those trees but you know they are difficult, they're all bare... And he'd look up at the tree and wish he could climb that tree.

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[28] See: http://www.sararegistry.gc.ca/species/speciesDetails_e.cfm?sid=269#population

[29] See: http://www.rom.on.ca/ontario/risk.php?doc_type=fact&lang=en&id=22

[30] A minimum of 2 and a maximum of 12 stories per one plant.

And then one day, we had kind of a hurricane, and it picked up all the trees and lifted them up and threw them down on the ground. And then my son, he went to the bottom of that tree while it was lying on the ground and he walked all the way to the top, and he said, "Mom! Mom! I finally climbed that tree!" And he had an English assignment at school. He wrote a poem about it. He wrote a poem about how he started climbing from the top and all the way to the end and then he got all the way to the top and he said, "I jumped, I jumped, I jumped off the top of the tree!"

<div align="right">Barb Fobister 2013</div>

The third story type is a *traditional story* - a story that is a traditional tale, folklore or any kind of cultural knowledge. Alice Pemmican's story about the Burr Oak matches this type:

There was a story my mom and dad (told me...) when the Ojibwe were traveling on the shoreline they actually would have the seeds in their moccasins, and then because they camped all along the shores, that's where you'd see a lot of the oak.

<div align="right">Alice Pemmican 2013</div>

The fourth story type is a combination of the first and second types – a *personal-factual story*. As the name implies, it is a personal experience, memory, subjective knowledge or an anecdote about a particular plant that is based on or contains facts about that plant's traits and uses. For example, Katherine Olson shared her experience with the Tamarack tree that burns very hot as a fire wood:

I had a rather unfortunate experience with tamarack in my greenhouse, which is all glass. And I decided that I needed to keep it warm overnight. I was paranoid that my stuff would freeze. So, uh, Peter cut me up some little tamarack logs into... a little caboose heater in there. So it was an upright, little potbellied heater and I put the tamarack in there, and I guess I put a little bit too much in and I cracked most of the windows, the glass above it, because the thermal expansion was too... dramatic. Too cold outside, too hot inside.

<div align="right">Katherine Olson 2013</div>

The fifth type is a combination between first and third types – a *traditional factual story*. It is a traditional tale, folklore or any kind of cultural knowledge that is

based on or contains facts about that plant's traits and uses. For instance, Janice Anderson shared a story about blueberries' medicinal properties that she had heard from a First Nations person:

> A native person told us that once he'd forgotten his diabetes medication when he went out to his cabin, and the weather turned kind of bad so he couldn't get back home, safely. So he had remembered that some of the old people told him that if he ate the end shoots off of the blueberry plants that would (be like a blood sugar stabilizer). So he went and found some of that and he said he was out there for four days, anyway, maybe a bit longer by the time he managed to get home and he said he didn't have any problems with his diabetes at all.
>
> <div align="right">Janice Anderson 2013</div>

The last story type is a combination between second and third types – a *personal traditional story*. It is a personal experience, memory, subjective knowledge or an anecdote about a particular plant that is based on or relates to a certain traditional tale, folklore or any kind of cultural knowledge. Barb Fobister's story about her coming of age ceremony is a wonderful example:

> When I was about 14 my time started… and I told my grandma Kokum… and I said "Don't tell anybody!" And she went out and of course she went to where everybody was by the fire and told everybody. Oh, I felt so betrayed! You want to be private and have no one know what is happening. But to them it's a special time. She told me that now that I had my time, I couldn't eat berries; I couldn't eat anything that grew on the land until she had a ceremony. And this was springtime, so I had to wait all summer. Anything good that we ate, like, blueberries... I couldn't eat because she had to collect them, collect them all. And then in the fall, then she had her ceremony. And again, I was so embarrassed. She took all the elderly ladies to come and sit in a circle and she had the coming of age ceremony and I was again so mad at her. Like, making it so public. But now I appreciate it. When I had my own daughters I did the same ceremony for my oldest daughter.
>
> <div align="right">Barb Fobister 2013</div>

A total of 130 stories about 25 local plants were contributed by 13 local residents of Kenora area. The full list of stories appears in Appendix C.

4.4 Pre-Prototype-Design Data Analysis and Summary

At the first stage of pre-prototype design data collection, six cases from the real world that demonstrate the use of interactive, participatory and fun strategies that promote or support a certain cause were chosen and analysed. In each case I searched for expressions of at least three out of the following four attributes: interactivity; celebration of diversity; consumer\visitor participation; and, fun. Looking to incorporate all four attributes in the prototype, I sought after diverse expressions of the attributes in each case. The expressions of the four attributes are discussed below and followed by a summary table (Table 1).

1. *Interactivity*: I was inspired by the "Wall of Freedom" and "Wall of Fame" cases to create an interactive tool; a tool that would incorporate modern technology, such as smart-phones, existing social media platforms and QR codes. The "Dove Campaign" case inspired me to develop a version of an interactive visitors-photo-gallery, where visitors would be able to submit their own photos, creating a searchable online database. All three of these cases present a collaborative output that entirely depends on the visitors' individual input – an attribute expression that was incorporated in this prototype. For example, photos of a particular plant, taken by different individuals could create a mosaic of diverse shots of the same plant. Several mosaics of plants would create one big mosaic of photographs taken by local residents – a unique collaborative artwork. Such a mosaic, if constantly updated, could grow and evolve, which is an expression of content modification by visitors or participants. Finally, the case of "Geocaching" inspired me to have both offline (real-life interactions) and online communication among participants (utilising modern technology).

2. *Celebration of diversity*: This attribute is very important and central to this research and the design of the prototype. A major goal of this research is the design of a tool that will improve cross-cultural relationships and through that will contribute to a more harmonious co-existence of different individuals. Therefore, attribute expressions where the output relies on diverse input (such as in "Wall of Freedom" and "Wall of Fame" cases), and where different individuals come together over one cause (such as in "Wall of Fame" and the "Dove Campaign" cases) are extremely important, because they show that even the most different individuals have a common denominator. A common denominator is an important step towards finding common ground. It is equally important to have different participants who provide diverse input, and to expose participants to diverse content. For example, having different individuals share their stories about a particular local plant, and then exposing others to this diverse content is one expression of the *celebration of diversity attribute* that appears in the prototype I am designing in this research.

3. *Visitor participation:* Active participation of individuals is a crucial component in a research project that strives to improve cross-cultural relationships. Hence, participation in real-life outdoor activities (such as in "Geocaching" and "Te Papa Museum" cases) were incorporated in the prototype. Additional participation aspects I would like to adopt and implement are online and ongoing participation (such as in "Geocaching" and "Wall of Fame" cases) that enhance and expand the communication among participating individuals. A participatory photo-gallery (such as in "What I Love About Me" and "Dove Campaign" cases) will assist in achieving the 'participation in creation' expression – the collaborative photo-mosaic of local plants photos.

4. *Fun*: Many of the cases inspired me to create not just a positive, but an enjoyable atmosphere – a critical element in designing a favourable environment for the improvement of cross-cultural relationships. As a researcher, I believe that playing a fun game is an excellent way to create a positive atmosphere. The "Geocaching" case is a good example of an outdoor game that brings together the worlds of modern technology and nature, engaging the players in an adventurous challenge, and encouraging them to share their experiences online and help each other. The "Wall of Fame" case offers a different kind of fun – creative self-expression, while being a part of a bigger whole. It also offers a public display of the participant's artwork, similar to the way in which the "Dove Campaign" and "What I Love About Me" cases offer a public display of the participant's photograph in association with a famous brand. Publicity can be a source of enjoyment for certain people. In this research, I incorporated a variation of a treasure-hunt game into the prototype. Public display of the participants' artwork or photos (such as in the "Wall of Fame," "What I Love About Me" and the "Dove Campaign" cases) is another expression of *fun* that could work well in a participant photo-gallery.

Table 1 - Cases and Attributes Summary

Interactivity	Interactive website / tool; Output (collaborative creation) depends on the input (individual contribution); Content modification by participants	Wall of Freedom
		Wall of Fame
	Interactive photo-gallery; Output (collaborative creation) depends on the input (individual contribution)	Dove Campaign
	Interactive communication between participants; Interactive communication both online and offline	Geocaching
Celebration of Diversity	Output consists of diverse input; Different, diverse participants; Support of diverse input (photos and definitions of freedom); Different individuals for one cause (freedom and democracy)	Wall of Freedom
	Output consists of diverse input; Different, diverse participants; Support of diverse input (different drawings represent diverse backgrounds, personalities, views, etc.)	Wall of Fame
	Celebration, support and promotion of diversity (beauty and fashion); Exposing people to diversity	What I Love About Me
	Celebration, support and promotion of diversity (natural beauty); Different individuals for one cause (natural beauty and Dove)	Dove Campaign
	Museum's goal: represent and appeal to New Zealand's diverse society; Diverse content of Student-Trails; Visitor-centered interpretation that acknowledges the visitors' diverse backgrounds	Te Papa Museum
Visitor Participation	Participation open to everyone; Participation in action (campaign) and in creation (portrait); Contribution through participation	Wall of Freedom
	Participation open to everyone; Collaborative participation; Ongoing participation; Contribution through participation	Wall of Fame
	Contribution through participation; Participatory photo-gallery; Participation in creation (photo-gallery); Participation in action (campaign / cause)	What I Love About Me
		Dove Campaign
	Online & offline participation; Participation in real-life outdoor activity; Participation open to everyone; Ongoing participation	Geocaching
	Participatory trails and activities; Participation in real-life outdoor activity; Participation open to everyone	Te Papa Museum
Fun	Unlimited, minimally restricted self-expression; Public display of participant's artwork; Ability to view other participants' artwork	Wall of Fame
	Public display of the participant's photograph in association with a famous brand	What I Love About Me
		Dove Campaign
	Playing a game; The element of outdoor adventure; Completing a challenge	Geocaching
	Active, hands-on participation and creative self-expression contribute to more fun and engaging interpretation process; Student-trails	Te Papa Museum

At the second stage of pre-prototype design data collection, a group interview with the two Kenora high-school teachers yielded valuable information regarding the existing outdoor education program and some suggestions for a design of a desired new outdoor activity/game. The teachers' insights, comments and suggestions were all taken into account in the designing of the prototype, in order to produce something that would suit their needs and meet their expectations in the best way possible.

The stories about the local plants collected through the interviews not only portrayed the vast local knowledge of community members, but also provided important information critical for the prototype design in general, and the treasure-hunt game in particular. For example, the number of stories collected suggested the approximate number of 'treasure-hunt-stations' and competing teams. The content of the stories dictates the nature of the clues and questions in the treasure-hunt game.

The next chapter presents a prototype of an outdoor activity\game that was designed based on the collected data, as it was described in this chapter.

CHAPTER FIVE: A FUN INTERACTIVE, INTERPRETIVE EXPERIENCE PROTOTYPE

*"Playing a game is the voluntary attempt
to overcome unnecessary obstacles."*

The Grasshopper: Games, Life and Utopia
Bernard Suits (1978, 41)

Drawing on the data from the previous chapter, I designed a prototype of a fun, interactive interpretive experience for the Lake of the Woods Discovery Centre and Kenora high schools. In line with the research purpose, this prototype is aimed at improving cross-cultural relationships among Kenora youth, but potentially, it could be developed for a wider audience. The prototype was designed as an outdoor activity/game that could easily be incorporated in the outdoor education program at Kenora high schools.

In accordance with the high school teachers' advice, the students would be introduced to the prototype early in the school year and it would run throughout most of it. The prototype has four main parts (Figure 4):

1. Pre-Instruction is the only part that would take place in the class-room. During this stage the high school students will be taught about the 25 local plants chosen to be planted in the Discovery Forest. Part of the taught material will come from the local stories about these plants, contributed to this project by local Kenora residents and collected through interviews, as described in chapter four. These stories contain various anecdotes about the plants, personal experiences and different plants' uses. The other part of the material will be determined by the outdoor education teacher, which means it will come from books, educational websites etc.

1. Pre-Instruction
- Teaching about the 25 local plants
- Facebook group page, managed by the teacher
- Competing groups

2. Treasure Hunt
- Trip to the Lake of the Woods Discovery Centre (LWDC)
- Play Plant Treasure Hunt in the Discovery Forest

3. Find in the Wild
- Students look for the 25 plants in the wild
- Pinterest accounts for the competing groups
- Collecting photos of the 25 plants

4. Photo Exhibit
- End of the year photo exhibit featuring all the photos taken by the students throughout the year
- Online, at the LWDC and at the school

Figure 4: The Four Prototype Parts. © 2013 Inna Miretski, University of Manitoba

The reason for having a pre-instruction stage is purely technical; according to the teachers, the schools can afford only one trip to the Lake of the Woods Discovery Centre. Hence, in order not to waste time at the Lake of the Woods Discovery Centre on teaching the material, the students will arrive to the Centre already prepared and able to get the most out of their visit (the second part of the prototype).

Also, in an effort to incorporate social media in the program, a Facebook group page would be opened and managed by the teacher. The page will contain a large part of the taught material about the plants, including pictures of the plants and useful links. A Facebook group page allows activities such as sharing and comment posting, and provides instant accessibility and other advantages to make the learning process more fun.

Finally, before heading to the Lake of the Woods Discovery Centre, the teacher will divide the class into a number of teams, with three to four students in each team. These teams will compete against each other in the plant-treasure-hunt game that will take place at the Discovery Forest, near the Lake of the Woods Discovery Centre. It will be the teacher's responsibility to make sure that the teams are culturally diverse, with students from different backgrounds and abilities.

2. Plant-Treasure-Hunt: Divided into culturally diverse teams beforehand, the students will go on a school trip to the Lake of the Woods Discovery Centre, where they will play the plant-treasure-hunt game in the Discovery Forest. Each team will be assigned a different color and a different trail (Figure 5), and will receive a map with their specific trail that will assist them with navigating during the game. Some plants will appear on more than one team's trail. Each team will have a different starting station, meaning, a different plant. All teams will have to find approximately 15 plants, since a trail of 25 plants might be too long for a one day trip.
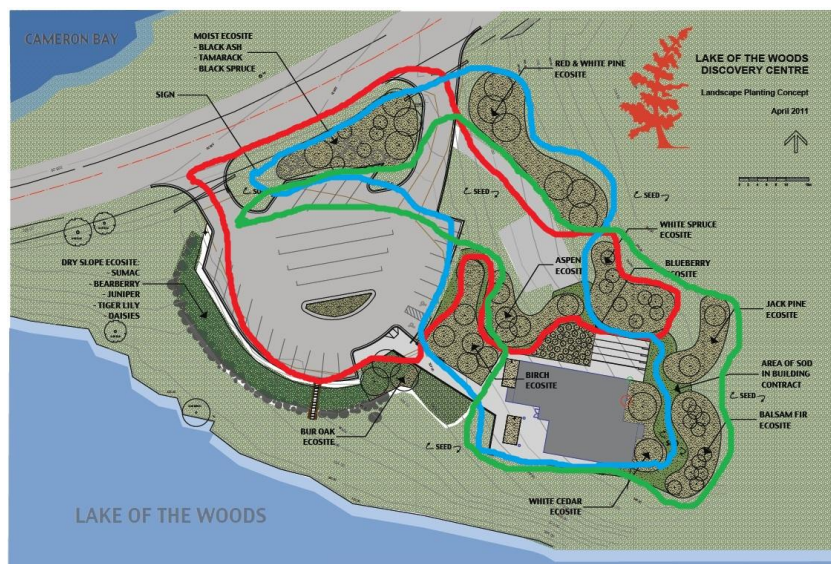

Figure 5: Example of Three Different Trails in the Discovery Forest. © City of Kenora

The plant-treasure-hunt game will be comprised of a sequence of four-part cycles (Figure 6), with each cycle including a plant, a local story about the plant, a question about the story and a clue to the next plant. Each team will
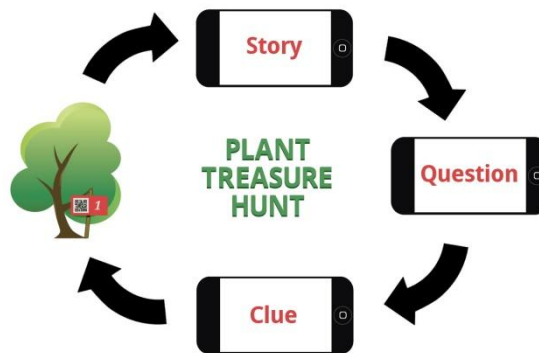
Figure 6: Plant Treasure-Hunt Sequence. © 2013 Inna Miretski, University of Manitoba

need a tablet (such as an iPad) or a smartphone in order to play the game. Lake of the Woods Discovery Centre will be able to provide tablets for this purpose. Alternatively, the students may choose to use their own smartphones or tablets. Each participating plant will be labeled with a QR code. Therefore, in order to access and play the treasure hunt game they will have to download a free QR code reader[31] from the internet to their device. The treasure hunt game will be stored on the Lake of the Woods Discovery Centre's server as a separate mobile website. When scanning the QR code of any of the 25 plants, the students will be taken to a particular webpage on the treasure hunt mobile website.

The plant-treasure-hunt game sequence is best described through a specific example. Let us assume that one of the teams of students is assigned the color blue. The "blue team" begins its trail with a Highbush Cranberry plant as their starting station. The starting station will have a visible sign with the color of the team, the number of the station and a QR code (Figure 7, picture 1). Once the game starts, the team scans the QR code (Figure 7, picture 2) and a story about the Highbush Cranberry appears on the screen of their device (Figure 7, picture 3). The story is an actual, real local story about

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[31] A QR code reader is an application that scans and reads QR (Quick Response) codes.

the specific plant, as told by a local resident. The students will have to read the story before moving to the next part of the cycle – a question about the story. After hitting the "continue" button, a question will appear on the screen (Figure 7, picture 4). The students will have to type in the correct answer, exactly as it appears in the story text. In case the students answer incorrectly or if they wish to go back to the story and reread it, they have the option of the "back to story" button.

It is important to mention that the aim of the questions is not to test the students' knowledge or memory of the stories, but to make sure that they read them and not skip them, while rushing forward in order to win the game. Simply put, the question ensures that the story will be read. Without reading the story the question cannot be answered. Without a correct answer to the question, the clue to the next plant cannot be revealed. As an example, let us look at the story from Figure 7, picture 1:

> Our friend told us that when he was fishing and he would open up the fish in the fall, they would have all these little stones in them and he was worried about what they were? And it was highbush cranberries… hanging over the water… falling into the water and the fish were eating them and they were getting them in their gut. The stones were highbush cranberry stones.

> Katherine Olson 2013

The question about this story is "What did Katherine's friend discover inside the fish he had caught?" and the answer is quite obvious – highbush cranberry stones. But one has to read the story in order to answer it.

Figure 7: Plant- Treasure-Hunt Example. © 2013 Inna Miretski, University of Manitoba

Once the question is answered correctly, the students get the clue to the next plant on their trail (Figure 7, picture 5). Unlike the question about the story, the clue tests the students' knowledge about the plants. Without the right knowledge, the students will not be able to identify the plant behind the clue. For example, the revealed clue in Figure 7, picture 5 reads: "It made the best pulp for white paper, although its name is

Black_____." The correct answer is Black Spruce and the students should know it based on the material they learnt in the pre-instruction part.

They will have to follow their team's trail according to the map and search for the Black Spruce, using the information in the clue and any other material they learnt in class beforehand. Each and every one of the next plant "stations" will have a sign with the team's color, station number and a QR code. The only difference being that except for the first station, the rest of the signs will be hidden inside or under the plant so the search is not too easy. When the team finds the next plant and scans its QR code, a new local story will appear on the screen of their device and a new cycle will begin (Figure 7, picture 6). This sequence will go on until one of the teams completes its trail and finds all the plants. The winning group will get a prize from the Lake of the Woods Discovery Centre.

3. In Find in the Wild students look for the 25 plants in the wild, outside the Discovery Forest. Unlike in the treasure hunt, in this part, the students will have to find all of the 25 plants. But they will not have to do it during one day. On the contrary, the intention is to engage the students in a several month long activity, and to encourage them to keep an eye out for the local plants throughout the school year.

The students will continue working in the same teams, competing against each other. Each team will open a Pinterest[32] account with one "board" where they will collect the photos of the plants they will have found in the wild. The students will be able to look for these plants in the environment around their schools during an outdoor education class, and in various other times and locations in Kenora. For instance, the students can try to locate plants during a school trip in the area, or even during a family camping

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[32] Pinterest is a social media platform that allows its users to collect and share images. A basic background about Pinterest is provided here: http://uk.about.pinterest.com/basics/ and basic user instructions are provided here: https://en.help.pinterest.com/home

weekend. At this stage, the team members can work together at a distance. For example, if Dan from Team A found two of the 25 plants while hiking with his brother, he should photograph the plants, upload the photos to his team's Pinterest account and inform his team mates about it.

There are three mandatory instructions regarding locating and photographing the plants. First, when locating a plant, students must take 2 photographs of it: a close-up and a photo where the plant is seen in relation to its environment. For example, a close-up of a Bur Oak a photo where the whole tree is seen on the street. Appreciating the smallest detail about each plant is as important as realizing its connection to the environment. Also, taking two photos, instead of just one, gives more room for self-expression and personal interpretation. Hence, the students may include themselves in these photos if they wish.

The second instruction requires students to upload the photos to their team's Pinterest board and write the name of the plant and the date the photo was taken in the description section.

The last instruction requires the students to send the exact GPS coordinates of the plant's location to their outdoor education teacher. They may use a GPS device or download a GPS app to their smartphone. This allows monitoring of the plant collection process and insures that students take photos of real plants and do not upload Google images. Since this part of the prototype is still a competition among the teams, GPS coordinates should not be posted on Pinterest for the rival teams to see. Notwithstanding, students should be encouraged to follow their rival teams' Pinterest boards in order to

monitor their progress. The first team to collect all 25 plants according to the instructions will be declared as the winning team and will be rewarded with a prize.

4. The Photo Exhibit featuring all the photos taken by the students throughout the "Find in the Wild" stage will consist of "plant segments" or "plant hot spots" as demonstrated in Figure 8. The central picture in each "plant segment" will be a picture of one of the 25 local plants and will be provided by the Lake of the Woods Discovery Centre or possibly by a local artist. The photos around it will be the students' photos – all photos of the specific plant, taken by students from all the teams. Ultimately, each plant will have its own mosaic of diverse photos. Together, these mosaics will create a bigger mosaic, containing all 25 plants as seen through the eyes of the Kenora high school students. The exhibit will be held both at school and at the Lake of the Woods Discovery Centre and it will also exist online, in order to extend the accessibility.
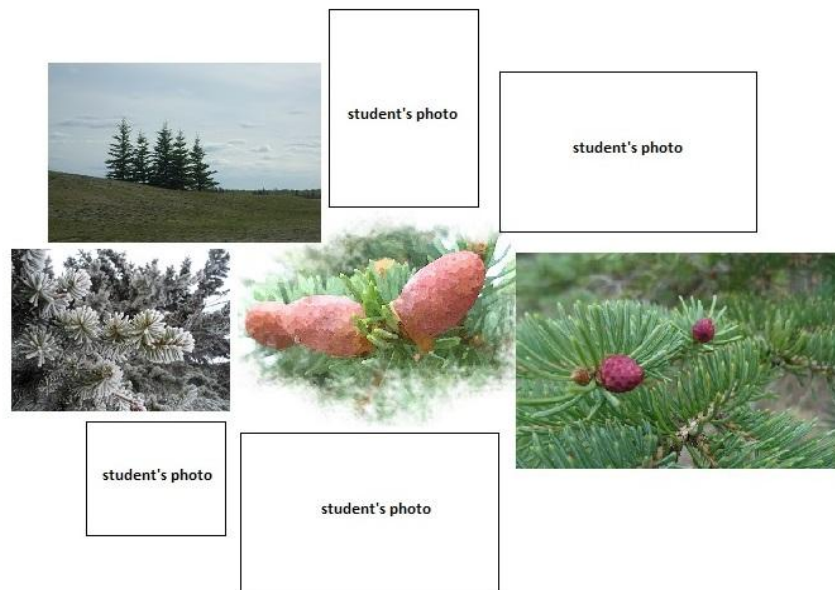
Figure 8: Plant Segment Example: Red Pine. © 2013 Inna Miretski, University of Manitoba

These mosaics – both small ones and the big one – would reflect the cultural and individual diversity of the Kenora area. Each photo would represent a different point of view, different story, and different inspiration. And together, all these different stories would create a mosaic of beautiful diversity. Besides working and collaborating in groups, besides reading the local stories behind these 25 local plants, the students – and anyone who sees the exhibit – would witness the outcome of this collaboration: the photo-exhibit would be a cross-cultural collaborative piece of art.

If included in the outdoor education program and held every year, potentially, this outdoor activity/game could lead to a creation of a collection, or a library of the photo-mosaics and the separate students' photographs of the plants. Also, more local stories about the local 25 plants could be added to the story collection, creating a bigger and more diverse "story bank" for the treasure hunt game. Subsequently, additional treasure hunt "story-questions", clues and trails could be developed. A version of this prototype for a wider audience could be developed as well.

CHAPTER SIX: PROTOTYPE FEEDBACK

> *"Games are providing rewards that reality is not.*
> *They are teaching and inspiring and engaging us in ways that reality is not.*
> *They are bringing us together in ways that reality is not."*

Reality is Broken: Why Games Make Us Better and How They Can Change the World
Jane McGonigal (2011, 4)

This chapter describes the feedback for the prototype that was presented in the previous chapter. A PowerPoint presentation, demonstrating and explaining the prototype (Appendix C), was given to a group of ten outdoor education program students from St. Thomas Aquinas High School in Kenora. A group interview session followed the presentation, where the students were able to share their own insights, give feedback and discuss various aspects of the prototype. In addition to that, Steve Mastromatteo – the outdoor education teacher – was present during the presentation. He provided his own feedback during a separate Skype interview.

The overall feedback that Steve and the students provided was very positive. They liked the concept, the aim and the potential of the prototype, as well as its general structure and design. All expressed their hope to see it launched in the near future. "It seemed it'll execute itself easily. So it'll be easy to understand and to follow through and interpret... we just hope that it actually gets launched. It'd be amazing if it's launched," said Steve.

The students mentioned numerous positive aspects of the prototype. They liked the active, hands-on approach of the prototype and that it took the students out of the classroom. They felt that it was student-interactive and student-led, and therefore, much more fun than a standard school program. According to the students, additional features

that added to the fun aspect were the treasure hunt game, the use of their smartphones and other emerging technology and certain use of social media. The students thought that together, these features contribute to a change in the students' attitudes toward learning. For example, some felt that the prototype provided a really good way to learn a lot more about local plants and to do it faster than in a classroom setting, allowing a more streamlined information delivery. Others appreciated the opportunity of learning how to identify the plants in a real outdoors setting and not just in theory. All students unanimously agreed that the prototype was fun, engaging and they definitely would like to participate in it as part of their outdoor education program. Both Steve and the students agreed that the prototype would be very beneficial to their community. The students felt that the sharing of stories and memories related to the local plants would bring the community closer together. Also, they thought that knowing more about local plants and landscaping with them could be useful to the community as well. Steve believed that the prototype has the potential to contribute to the community's development by welcoming a wide range of visitors to the Lake of the Woods Discovery Centre. The prototype could mirror the local community's rich and diverse heritage on the one hand, and provide a fun and engaging activity on the other. Lastly, Steve especially liked the use of QR codes, since he felt that they allowed unlimited possibilities for further development of the prototype in the future. For example, the transferability of QR codes from one location to another and the ability to tag multiple plants with the same QR code allows great flexibility in adding new trails or altering the existing ones, or in introducing the prototype to other schools.

Two main topics dominated in the group interview discussion: *social media* and *emerging technology and electronic media.* Social media was the most debated topic. Some students expressed concerns regarding the protection of their privacy while using Facebook in a school program. The students explained that teachers and students are not typically "friends" on Facebook and neither would like to provide the other with access to their personal account. This could happen if students and teachers were members of the same Facebook group page. Starting the 2013/2014 academic year, the students will have access to Facebook at school. Still, the school would probably keep their current social networking platform for e-learning, called Ed-moto. This platform allows students and teachers to communicate in a strictly educational context and it is monitored by teachers and the school's IT department. In addition to possible privacy issues, some students voiced concerns regarding Facebook being a distraction from school work and containing negative advertising.

On the other hand, other students thought that Facebook could work just fine within the prototype and even benefit it. It was mentioned that Facebook is the most universal and most used social networking site. Hence, students are more likely to casually visit Facebook than a site like Ed-moto, and come across various cues and notifications regarding the prototype. This accessibility alone has the potential to retain students' interest and enhance their engagement in the project. Also, some students mentioned that Facebook has better mobile applications and access, whereas Ed-moto has a single mobile application, which, in students' opinion, is not very user-friendly. As for the privacy concerns that were mentioned by some students, others explained that the issue can easily be solved by setting up a "public" page that does not require its members

to be "friends." Therefore, the page members would not have access to each other's private page content.

The other social networking platform that some students had doubts about was Pinterest. The main reason for that was that many students in the group were not familiar with it. And so, at first, they suggested to use Instagram – currently, the most popular platform for photo-sharing. But after realising that Instagram only stores photos as individual packets, while Pinterest provides themed "boards" for collecting photos, the students waived the Instagram option. The options of Twitter and Flickr were briefly considered and dismissed. Ultimately, the students came to the conclusion that Pinterest would work best after all. They felt that it did not pose potential privacy concerns and even allowed anonymity by being able to use a general team username, instead of private name.

The other dominant discussion topic was emerging technology and electronic media. The students liked the idea of incorporating the technology and media in their school program. They felt that it was an integral part of the prototype that allowed unique and exciting learning possibilities both in and outside the school. Steve thought that the ability to use the students' own smartphones and other smart devices contributed to the fun aspect. Some students mentioned that not everyone has access to their own smart device. But Steve said that the school has access to such devices and can provide them for the purpose of participating in the project. Steve also liked the use of QR technology and the various possibilities it provides, as mentioned earlier in this chapter.

A number of improvement and possible future development suggestions were made as well. Steve made two improvement suggestions regarding the local stories. One

of them was to hire professional readers and to create audio recordings of the stories. He thought that including both the text and the audio would greatly improve the experience and would appeal to a wider audience. Also, he mentioned that it would be excellent to hear the correct pronunciation of the Latin and Anishanabe plant names. The other suggestion Steve made was to make the story bank as big as possible, so only the most interesting and informative stories would be picked for the treasure hunt game content. Another comment regarding the content of the treasure hunt game was made by the students. They felt that the level of the questions about the local stories could be raised. It is important to notice that the students were not made aware of the original purpose of the questions, which was to ensure that they read the entire story. Two technical improvement suggestions addressed the treasure hunt game, one of which proposed to make sure that the treasure hunt application would not be case sensitive, in order to avoid potential problems that incorrect spelling may cause. The other stressed the need to ensure that the Lake of the Woods Discovery Centre wifi access would extend throughout the entire site. Another student's comment suggested that the photos of plants uploaded by students to Pinterest would be verified by the teacher, to ensure correct identification of each plant. Finally, another comment proposed that in order to further protect students' privacy, there is a need to make sure that photos that feature students would be posted only with those students' consent.

Both students and Steve proposed some excellent future development ideas. All agreed that the prototype has the potential to be developed for a wider audience. In order to do so, it would be necessary to address the need to do the pre-instruction stage. One of the students proposed to adopt a method used by the Quebec Bee Museum – place kiosks

that would contain information about local plants inside the Lake of the Woods Discovery Centre. All visitors will be able to educate themselves about the local 25 plants before heading on an independent tour or playing the treasure hunt game. Another development idea proposed incorporating the trip to the Lake of the Woods Discovery Centre and the treasure hunt game into another trip within the outdoor education program, so the project would complement other aspects of the outdoor education curriculum. For instance, the trip to the Lake of the Woods Discovery Centre could be combined with the annual canoe trip; the students would go on the canoe trip, make a stop at the Lake of the Woods Discovery Centre, play the treasure hunt game and continue the trip. Further, it was suggested that the school communications and coding classes could assist in developing the treasure hunt game application. Lastly, Steve proposed a way to find sponsors or advertisers for the project. He suggested that Lake of the Woods Discovery Centre could look for potential advertisers who would agree to give out coupons as a prize for the winning team in the plant treasure hunt game.

Positive aspects of the prototype, improvement suggestions and possible future development options are summarized in Table 2 on the following page. All of the feedback presented in this chapter was incorporated into the final prototype version, including suggestions for future development. The final version of the prototype is presented in chapter seven.

Table 2- Feedback Summary

Positive Aspects	Improvement Suggestions	Future Development
- Overall structure and design of the prototype - Aim and concept of the prototype - Fun and engaging - Beneficial to community – brings together and develops - Active, hands-on approach - Out of classroom - Student-interactive and student-led - Liked the treasure-hunt - Liked the use of smart devices, emerging technology and social media - Improves learning experience - Improves attitude towards learning - Would like to see it launched and partake in it	- Social media – ensure privacy - Create professional story audio recordings - Ensure a wide selection of interesting local stories - Consider raising treasure hunt questions level - Treasure hunt app – make not case sensitive - Ensure Lake of the Woods Discovery Centre wifi access - Ensure that teacher verifies correct identification of plants on Pinterest	- Wider audience - Information kiosks for Lake of the Woods Discovery Centre visitors - Complement outdoor education curriculum - Involve coding and communication classes in app development - Seek advertisers and sponsors - QR code transferability

CHAPTER SEVEN: CONCLUSIONS

"For even now it is games which give us something to do
when there is nothing to do. We thus call games "pastimes,"
and regard them as trifling fillers of the interstices of our lives.
But they are much more important than that. They are clues to the future.
And their serious cultivation now is perhaps our only salvation."

The Grasshopper: Games, Life and Utopia
Bernard Suits (1978, 159)

The aim of this research was to design a prototype that could improve cross-cultural relationships among Kenora youth. I chose to concentrate on positive factors that already existed in the community and build on them, rather than tackling the problem directly at the risk of aggravating the tension. This approach draws from my personal background and life experience. Growing up in the Middle East region, I found that it was political and social tension, violence and territorial conflict that received most of the attention, while mutual successes and accomplishments rarely reached the spotlight. And yet, positive achievements keep piling up in the shadow of the conflict, preventing it from exploding. I believe that these exceptional positive achievements are the fruits of ordinary human friendships.

Of course, the desire to solve a problem is only natural. But it can be done by building on existing positive factors. I believe that the positive foundation is more stable and much stronger than the negative one. Finding a positive common denominator could ultimately help find a common ground. In this research, I chose the local plants of Kenora area as the common denominator, and therefore, the focus of the prototype. The prototype offers potential to allow Kenora residents, and particularly high school students, to share and discover local stories; to learn about local plants and learn to

identify them; to explore the land while looking for them; and to take photos of the plants and create a collaborative photo exhibit. All these activities can potentially strengthen existing relationships and build new ones, eventually improving the cross-cultural relationships in the area.

7.1   Findings

My first objective was to document local stories, knowledges and experiences about 25 local plants. Through this objective I aimed to achieve two important things. First of all, I wanted to ensure that a prototype with a focus on local plants was feasible. I needed to see whether there were enough local stories about the local plants, and whether there were enough local residents who would agree to share their stories. Luckily, the outcome exceeded my expectations. An impressive total of one hundred and thirty stories about the 25 plants (Appendix C) was collected from just thirteen local interviewees, in two months time. The existence and availability of so many local stories was more than proof of this project's feasibility. It was an opportunity to conserve a rich heritage, and at the same time create something new.

Secondly, I was aiming to create a big enough bank of interesting stories that could be used as content in the plant-treasure-hunt game. One hundred and thirty stories was enough to choose from, taking into account that in the treasure hunt game each plant needed to have at least one 'local story' and one 'clue', and there needed to be three different trails with a variety of plants on them. Realizing the diversity of the collected stories, I decided to categorise them into six main story types: factual, personal, traditional, personal-factual, traditional-factual, and personal-traditional (Appendix C). Moving forward, I believe that such categorisation will help in creating treasure hunt

trails with the most eclectic content. When building trails, it will be possible to ensure that each trail contains stories that reflect factual, personal and traditional perspectives on the local plants.

Also, I came to the conclusion that these local stories have further potential that could benefit the Kenora community. They could possibly be published as a book – a collection of local stories about local plants, including photographs and drawings of the plants. Together, these individual stories could create one story – the story of Kenora's plants and people. Such a book could be sold in the Lake of the Woods Discovery Centre and perhaps gifted to the winning plant-treasure-hunt teams.

If implemented, the prototype should be open for local people to add more stories about these local plants. As an ever-evolving project, I would suggest that it should be coordinated and monitored by the Lake of the Woods Discovery Centre.

My second objective was to describe and analyse six cases that demonstrate the use of interactive, participatory and fun strategies to promote a certain cause. I wanted to explore the options that already existed and are successfully in use. Out of a wide range of excellent cases, I narrowed down my choice to the most relevant six. My choice was based on four attributes that I was looking for in the cases, in order to incorporate them in the prototype. The attributes were: interactivity; celebration of diversity; consumer\visitor participation, and fun. Each chosen case had to have at least three out of the four attributes.

The exploration and analysis of the six cases provided me with an excellent opportunity to take an up close and more deliberate look at them. It was reassuring to see the success of the cases in real life. I was inspired by each and every one of the cases and

found numerous features I was able to successfully adapt in my prototype. Also, I came to realize that reaching a similar – or any – level of success with my prototype will take time, because success will depend largely on active participation, just like in the examined cases. And I believe that the fun and positive atmosphere that the prototype can create has high potential to encourage such participation.

My third objective was to propose a design for a new prototype of a fun, interactive interpretation experience for the Lake of the Woods Discovery Centre. The design of the prototype was largely based on the first two objectives and the data collected from the research participants through semi-structured single and group interviews. Also, the design of the prototype was influenced by the literature review, which addressed the bio-cultural design conceptual framework, visitor-centred interpretation, and games and fun.

Creating a visitor-centred interpretation experience was important in the context of this research. I did not want to simply feed the students stories about local plants; I wanted the students to have a meaningful interaction with these stories and the plants, and ultimately, to create their own stories through photographing these plants in the wild. Ames et al. (1992) suggests that by actively participating in the interpretation process, students will be more engaged and involved in the experience, which eventually will help them gain not only knowledge about plants, but also wisdom. During the feedback session, the students voiced unanimous support for the hands-on, active approach, adding that they preferred it over the standard, more passive, class setting.

But in order to encourage students' participation and trigger their interest, something else was needed. The students had to be "disconnected" from everyday

tensions and problems and brought into a politically neutral space that was fun, creative and positive. Engaging the students in a game and a fun outdoor activity seemed a suitable solution. Some authors believe that aside from creating a positive atmosphere during the game, people tend to like each other better after playing a game together (Hromek & Reffey 2009; McGonigal 2010), and that is exactly in line with my research purpose. Both the students and the teachers liked the idea of partaking in a fun outdoor activity and playing a game in general, as well as the specific design of the prototype, including the plant-treasure-hunt game. They also expressed their hopes to have this prototype in their outdoor education program at school.

Throughout the research process, but especially in regard to this objective, I was guided by the bio-cultural design conceptual framework. With the research purpose in mind, it was essential to involve the research participants in the design process, to give expression to their unique knowledges and skill sets, to acknowledge their aspirations, and to listen to their feedback. Bio-cultural design made it possible to create a composition of co-existence that included all of these components within the design parameters. But it is important to remember that the prototype cannot, and should not, have an absolutely final version. The so called "final" version that I present in Appendix E is final only in terms of this research. If launched, the prototype should have a test-run to be followed by a revision round, in order to yield a refined version. And even that version should be revised occasionally and be open to developments and adjustments, according to evolving needs, interests and issues in the community.

Based on the feedback received from research participants, the third objective was achieved, and so was the research purpose – to create a tool to facilitate a fun, interactive

interpretive experience that could improve cross-cultural relationships among the youth of Kenora District. Participants' feedback was mainly positive, with the exception of a few suggestions for minor modifications or additions, as explained and discussed in chapter six. Both the high school students and their outdoor education teacher thought that the prototype was interesting, educational and fun; that it would be beneficial to their community; and, that it would be a good addition to the schools' outdoor education program. They said that they hope to see the prototype up and running in the near future, and even offered their help and cooperation. In the hope of the prototype being launched, the following section summarises the suggestions for future development made by the research participants.

7.2   Participants' Suggestions

Some of the suggestions for improvement, that were made by the participants, and described in chapter six, have been incorporated in the final version of the prototype as it appears in Appendix E. For example, the need to ensure students' and teachers' privacy while using social media for this project was addressed. Another example is that the outdoor education teacher's approval of correct plant identification in the Find in the Wild part was added to the instructions. Yet, other suggestions for future development may be incorporated only during the actual development and launching of the prototype, due to financial and technical reasons. This subsection summarizes these suggestions.

As regards the complete 4-part prototype, the main recommendation made by both the students and their teacher was to have a test-run. They suggested incorporating the current version of the prototype into their school's outdoor education program as soon as possible. But at the same time, they noted that a test-run would not be possible without

the plant-treasure-hunt app. It was proposed that, given sufficient funding, Lake of the Woods Discovery Centre be responsible for the development of the app based on the plant-treasure-hunt mock-up as it appears in the PowerPoint presentation in Appendix C, and its launching. Nonetheless the students offered their help with the app, suggesting that students from coding and communication classes could assist in, or even handle the development of the app.

It was also suggested that a number of other professionals, specialists and knowledgeable individuals could be involved in the development and launching of both the plant-treasure-hunt app and the whole 4-part prototype. The outdoor education teacher proposed to hire professional readers in order to create audio recordings of the local stories for the plant-treasure-hunt. He also mentioned that beforehand, the stories will have to be edited. Therefore, one or more professionals, as determined by the Lake of the Woods Discovery Centre, could do the editing and decide which stories will appear as a "local story" in the plant-treasure-hunt app, and which as a "clue." Also, one or more local specialists could design several plant-treasure-hunt trails, based on their knowledge of the local landscape and flora.

Looking to the future, the students proposed to develop and design a version of the prototype that would work for a wider audience, so that families could enjoy this experience together and out of town tourists could get to know Kenora in a more intimate and unique way. They suggested that installing information kiosks on site could replace the pre-instruction part in the version for students. Finally, the outdoor education teacher suggested seeking local advertisers and sponsors who could help fund the project, as well as make it popular faster.

7.3 Reflection on the Prototype Design Process

As the central part of my research, the design of the prototype, was influenced and guided by the bio-cultural design conceptual framework. According to Davidson-Hunt et. al. (2012), the process of designing a product, or service, with the Bio-Cultural Design approach is creative, collective, collaborative and intentional, and involves different individuals with diverse backgrounds, knowledges and skill-sets. The process contains and combines the variety of the participating individuals' worldviews, experiences and cultural backgrounds, allowing everyone to have a voice.

Aiming to design a tool with the potential to improve cross-cultural relationships, it was essential to make sure that the design process of the tool meets the same standards as the end product. In other words, I was trying to achieve a dynamic and flexible design process that welcomed diverse modes of participation and allowed the participants to influence the design. Looking back at the process, I believe that I achieved this goal. Just like Nelson and Stolterman (2003, 1), I believe that "design is such a natural human ability that almost everyone is designing most of the time," especially when it concerns their own future. Figure 26 shows the prototype design process, the people who took part in it, and their input.

After the City of Kenora had identified the improvement of cross-cultural relationships as one of its research priorities, Common Ground Research Forum brought together numerous scholars and researchers – I was one of them. When my initial research proposal was approved by the Common Ground Research Forum executive committee, I started to create a *Preliminary Idea* (see Figure 9) of the prototype.

Professors

Researcher

Personal experiences

Literature review

Skill-sets

PROTOTYPE

Preliminary
Idea

Pre-prototype-design
data collection
(Phase #1)

Design
Process

Kenora Residents
- Personal experiences
- Cultural diversity
- Stories

O.E. Teachers
- Personal experiences
- Skill-sets

Researcher
- Real-world cases
- Professors

PROTOTYPE

Beta
Version

Post-prototype-design
data collection
(Phase #2 - Feedback)

Design
Process

Students
- Personal experiences
- Cultural diversity
- Skill-sets

O.E. Teacher
- Personal experiences
- Skill-sets

Researcher
- Skill-sets
- Professors

PROTOTYPE

Final
Version

Launching
and
test-run

Design
Process

Students

Teachers

O.E. Program

LWDC

Kenora residents
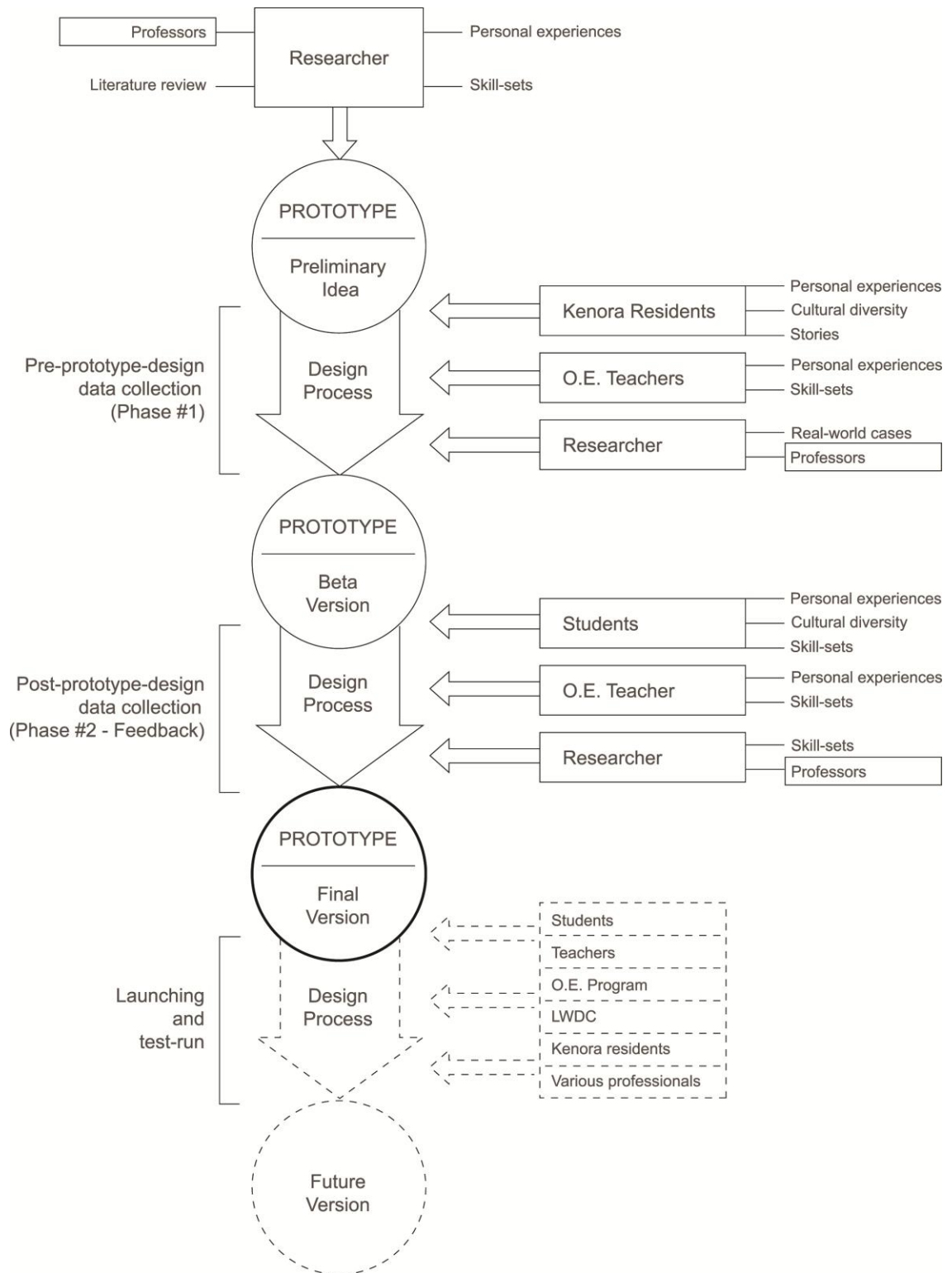
Various professionals

Future
Version

Figure 9: Prototype Design Process. © 2013 Inna Miretski, University of Manitoba

As the *Researcher,* I used my personal background, experiences, knowledge and skill-sets; read and reviewed a vast amount of literature; and, consulted with my *Professors* – thesis advisors and thesis committee members – who used their own unique personal background, experiences, knowledge and skill-sets in order to advise me.

With the preliminary idea in hand, I proceeded to the first phase of the data collection – pre-prototype design data collection. I invited *Kenora Residents* and *Outdoor Education Teachers* to participate in the design process and offer their input. Kenora residents contributed a variety of stories about local plants; these stories reflected their personal life experiences, traditions, culture and knowledge. The teachers' input largely drew from their professional experience at Kenora high schools. As the researcher, I contributed to this stage of the design process by reviewing six real-world cases, analysing the collected data, and consulting with my professors once again. This intentional, collaborative, collective and creative effort produced the *Beta Version* of the prototype. This version was presented to Kenora *High School Students* and their *Outdoor Education Teacher* in order to receive their feedback. That was the second phase of the data collection – post-prototype design data collection. Participants' feedback and input at this stage of the design process led to the creation of the *Final Version* of the prototype, as it appears in Appendix D. Hopefully, in the future, the prototype will be launched and a test-run will take place. The design process should continue as well, with Kenora residents, high school students, teachers, Lake of the Woods Discovery Centre workers and other professionals continuing to take part in it and contributing to it. Perhaps the *Future Version* of the prototype, after the test-run, will be slightly different from the current *Final Version* – a slightly different composition of co-existence. It is

natural that the design process will never completely stop, since the social context of the process is dynamic and the circumstances and needs of the community may change. Therefore, it is important that the different community members continue to partake in the design process and ensure that all voices be heard.

7.4   Concluding Thoughts

In designing a prototype for a 21st century "experience society" I aspired to create a tool that would be visitor-centred, fun, participatory and reflective; a tool that would bring various people, and their diverse backgrounds, into the interpretation process and encourage them to interact meaningfully with the interpreted text, as well as with each other. During the design process, I was thrilled to discover that the participants – members of the "experience society" – brought their diverse backgrounds and "active" attitude into the design process. They offered their knowledge and personal experiences, shared their worldviews and personal interpretations of various phenomena, and were willing to collaborate and cooperate. Witnessing this, I came to realize that the design process was as central to this research project as the end product that I was aiming to create. A bio-cultural design approach enabled the research participants to engage in a meaningful, cooperative, collaborative and creative process that included a diversity of cultural and social backgrounds and various worldviews. Once the participants were disconnected from their community's socio-political issues, put in a conflict-neutral space, and provided with a positive common denominator, their already existing willingness to communicate, deepen their understanding of each other's "stories" and collaborate towards a mutual goal was revealed.

Even though this research does not include a test-run of the prototype, meaning, the participants did not actually play a game together, the atmosphere, while discussing the prototype design, was very positive. During the students' group interview, which was culturally diverse, they expressed interest and excitement about the prototype and were willing to work together towards its launching. Hopefully, they will participate in it in the future as part of their outdoor education program.

As for the prototype itself, this research in general and the final version as it appears in Appendix E provided the Lake of the Woods Discovery Centre with the information needed for applying for funds in order to further develop and launch it in the future.

Lastly, the following are some final suggestions that I believe would help in developing and launching the prototype in the future. Firstly, I agree with research participants that a test-run should be the next step in this process. The high schools that are interested in including this prototype in their outdoor education programs are advised to refer to the final version of the prototype as it appears in Appendix E, use it as it is or adjust it to their school's program. The teacher should inform the outdoor education class that the prototype is a new activity and ask the students to document their experiences, impressions and comments throughout all four parts of it. For example, the students may be asked to keep a journal for this purpose. The teacher should follow the same script. Both students' and teachers' feedback would greatly help to improve the activity and better adjust it to the needs and goals of the schools and community. As regards the plant-treasure-hunt app, handing over the responsibility of developing the app to the high-school students will allow them to participate extensively and contribute to the ongoing

design of this activity. While this is the less expensive option, another option would be to hire professional developers and designers. As for hiring professional readers in order to record the stories for the app, my suggestion is to first consider local readers – individuals from whom the stories were originally collected. This might add more local touch and authenticity to the app, making the whole experience more intimate and meaningful.

In addition to the prototype, as mentioned earlier in subsection 7.1 of this chapter, I would suggest publishing a book with a collection of local stories about local plants, with photographs and drawings of these plants by Kenora residents. Such a book could become a tangible token of Kenora's rich cultural heritage, representing the initiative and commitment of its people to come together.

My final suggestion is to conduct a follow up study during the time of the test-run, in order to assess the prototype functioning and revise its design. The study may include participants' journals, as described earlier in this subsection, together with participant observation and interviews. Such a study would make a significant contribution to successfully developing and launching the prototype in the future.

APPENDICES

Appendix A

Research Instruments: Materials to be Given to Participants, and Interview Schedules

Table 1: Plants Interview Guide

Topics	Sample Questions
Plants' Uses	What plants are you familiar with from this list[33]?
	Do you use any of these plants? If yes, which ones? For what purpose? How often?
	If you had to pick the most useful plant out of this list – which one would you pick? Why?
	Is there anything unusual or very special about any of these plants? If yes, Please elaborate.
Plants' Value	Do any of these plants hold a cultural or a traditional value for you? Please elaborate.
	Do any of these plants hold a historical value?
	Do you have any favorite plants from this list? May I ask why?
	If you had to pick the most important plant out of this list – which one would you pick? Why?
General	Is there anything else you could tell me about any of these plants?

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[33] The plant list in Appendix B.

Table 2: Group Interview with High School Teachers (Prior to Prototype Design):

Discussion Topics
Outdoor games
Outdoor education
Outdoor recreation
Outdoor activities for high-school students
Game designs
Potential benefits of games
Potential negative aspects of games
Sample Questions
Are there currently any outdoor activities that are part of the school's education program? Please, elaborate and give examples.
What role do outdoor activities play in the school's education program?
In your opinion, what are the benefits that outdoor activities have to offer to students?
In your opinion, what are the possible negative aspects of outdoor activities?
In your opinion, do students enjoy outdoor activities? Please elaborate.
Are games a part of your school's education program? If yes, which games? If no, should they be?
In your opinion, what are the benefits that games have to offer to students?
In your opinion, what are the possible negative aspects of games?

Table 3: Discussion Topics and Sample Questions for the Students Group Interview and the Interview with their Teacher (Post Prototype Design):

Discussion Topics
Advantages of the prototype
Disadvantages of the prototype
Potential benefits
Potential problems
Benefits for community
Suggestions for improvement
Similar projects and experiences
Sample Questions
What positive feedback do you have on the prototype? (Advantages, benefits, strengths, good qualities).
What negative feedback do you have on the prototype? (Disadvantages, limitations, weaknesses, poor qualities).
Did you ever take part in a similar experience or activity as the prototype suggests?
Does the experience this prototype offers sound fun? Engaging?
In your opinion, could the experience this prototype offers be beneficial to the local community? If yes, in what way?
Would you like to participate in the experience this prototype offers?
Do you have any improvement suggestions for this prototype?
Is there anything else you would like to add?

Appendix B

List of the Local 25 Plants

Common English Name	Anishinaabe Name	Scientific Name
Red Pine	*Gaazhoosh Kwenigwegozid Shingwaak*	*Pinus resinosa*
White Pine	*Shingwaak*	*Pinus strobus*
Black Ash	*Agiimaatig*	*Fraxinus nigra*
Tamarack or Larch	*Mashkiigwaatig*	*Larix laricina*
Smooth Sumac		*Rhus glabra*
Bearberry		*Arctostaphylos uva-ursi*
Juniper	*Gaagagiwaandag*	*Juniperus communis*
Tiger Lily		*Lilium lancifolium*
Ox-eye Daisy		*Leucanthemum x superbum*
Eastern White Cedar	*Giizhig*	*Thuja occidentalis*
Jack Pine	*Okigaandag*	*Pinus banksiana*
Blueberry	*Minaan*	*Vaccinium _____*
Balsam Fir	*Pigewaantig*	*Abies balsamea*
White Spruce	*Minaeg*	*Picea glauca*
Black Spruce	*Sesegaandag*	*Picea mariana*
Labrador Tea	*Mashkiigobagoon*	*Ledum groenlandicum*
Beaked Hazelnut	*Pagaaniimizh*	*Corylus cornuta*
Wild Red Raspberry	*Miskominaatig*	*Rubus idaeus*
Trembling Aspen	*Azaati*	*Populus tremuloides*
White Birch / Paper Birch	**Wiigwasaatig**	*Betula papyrifera*
Bur Oak	*Miitigomish*	*Quercus macrocarp*
Chokecherry	*Osisewayminaatig*	*Prunus virginiana*
Scarlet Hawthorn	*Minesiwaatig*	*Crataegus coccine*
Western Silvery Aster		*Symphyotrichum sericeum*
Highbush Cranberry	*Aniibiminaatig*	*Viburnum trilobum*

Appendix C
For a complete list of plant stories and the presentation of the prototype
please refer to my MSpace at: https://mspace.lib.umanitoba.ca/

Appendix D
The Final Prototype Version: "Plant a Story"

Plant a Story is an ongoing, 4-part outdoor activity where the students have an opportunity to learn about local plants, discover local stories, and "plant" their own new story.

Background: Plant a Story is a fun, interactive interpretive activity the main aim of which is to improve cross-cultural relationships among Kenora youth. The philosophy behind Plant a Story is that positive social and cultural foundations are more stable and much stronger than negative ones. Therefore, concentrating on positive factors that already exist in a community and building on them would yield positive outcomes, and finding a positive common denominator could ultimately help find a common ground.

The positive common denominator in Plant a Story is the local flora. A variety of 25 plants that are local to Kenora region were carefully selected by the Lake of the Woods Discovery Centre (Lake of the Woods Discovery Centre) for this activity. Over a 100 different local stories about these plants were shared and contributed to this activity by local residents of Kenora. The purpose of this activity is for students to learn about their rich and diverse cultural heritage, get a chance to contribute to it, and most importantly, learn to appreciate diversity, rather than just noticing differences.

Plant a Story consists of 4 consecutive parts: Pre-Instruction, Plant Treasure Hunt, Find in the Wild, and Photo Exhibit. The activity is designed to be carried out throughout the school year, with a certain degree of flexibility to meet the specific needs of each school and class. It best suits high school students in grade 9 and older. Group size, duration of activity, location, materials and methods will be outlined separately for each part.

Part 1- Pre-Instruction: In this part the students will be introduced to the Plant a Story activity, and then, will be taught about the 25 local plants, chosen to be planted in the Discovery Forest – the botanic garden of the Lake of the Woods Discovery Centre. This part is the base for the whole activity, and therefore, imperative for the students' success in the following three parts.
Group Size: The whole class
Duration: 3-5 classes
Location: Classroom
Materials:
- Books
- Access to the Internet

- Any other relevant educational materials, as determined by the outdoor education teacher

Method:

1. The outdoor education teacher will present the Plant a Story activity to the class.

2. The students will learn about the local 25 plants that were chosen for this activity. The outdoor education teacher will determine the sources, type and amount of material to be taught, as well as the number of classes to be devoted to this part.

Part of the taught material come from the local stories about these plants, contributed to this project by local Kenora residents, whereas the rest of the material would come from various educational books and websites.

3. It is suggested to use a social networking platform in order to improve the learning experience. Such a platform would improve the accessibility of the learning materials and make the learning process more interactive and fun. For instance, learnt materials and photos of plants could be posted online by the teacher, while additional information could be shared by the students.

Possible options would be to use Facebook or the schools' current social networking platform for e-learning – Ed-moto. In either case, special attention should be paid to the students' and teacher's privacy when using a social networking platform. An adequate privacy setting should be in place.

4. When pre-instruction is complete, the teacher will divide the class into several teams of 3-5 students. It will be the teacher's responsibility to make sure that each team is culturally diverse, with students from different backgrounds and with various abilities. The students will work in these teams in parts 2 and 3 of the activity.

Part 2 - Plant Treasure Hunt: In this part the students will go on a school trip to the Lake of the Woods Discovery Centre, where they will play the plant-treasure-hunt game in the Discovery Forest. They will use the knowledge acquired during the pre-instruction part, as each treasure hunt "station" will be one of 25 plants they learned about earlier. For example, "station" #1 could be Black Ash, station #2--Juniper and so on.

Group Size: Small groups (3-5 students each) working simultaneously

Duration: 1-2 hours

Location: Discovery Forest at the Lake of the Woods Discovery Centre

Materials (for each group):

- Smartphone /i-Pad with a connection to the Lake of the Woods Discovery Centre wifi

- Plant Treasure Hunt app

- QR code reader app

- Plant Treasure Hunt instruction sheet

- Map of the group's trail (printed or digital version)

Method:

1. Students arrive at the Lake of the Woods Discovery Centre in order to play the plant-treasure-hunt game. They will compete in teams, as divided by the outdoor education teacher at the end of the pre-instruction part.

2. The rules of the game will be explained to the students and the following instruction sheet will be given to each team:

Student Instructions Sheet #1-- Plant-Treasure-Hunt:

Hello team! You are about to play an interactive Plant-Treasure-Hunt game, where all that knowledge that you've acquired about the local 25 plants will come in handy. You are competing against your fellow teams so fuel up your team spirit and have fun! The first team to complete its trail will be the winning team and will receive a prize from the Lake of the Woods Discovery Centre.

READ THE WHOLE INSTRUCTIONS SHEET BEFORE YOU BEGIN
Follow these instructions:

1. Find your "start" station. In a few minutes your team will receive your **colour** and the

map of your trail in a digital and/or printed format. Your trail contains 15 "plant stations." Your first "plant station" is your **"start" station**. Under your "start station" plant you will find small **sign** with your team's colour, a QR code and number 1 printed on it. The sign will be visible (see example in Figure 1). Locate your team's "start" station and proceed to instruction #2.

Figure 1

2. Check your equipment. A Lake of the Woods Discovery Centre worker or your outdoor education teacher will approach you shortly. In the meantime, check your equipment. Make sure that you have:
1) At least 1 functioning smartphone / i-Pad
2) QR code reading app downloaded onto your smart device
3) Your team's trail map

When your teacher or Lake of the Woods Discovery Centre worker approaches your team, together you will check the wifi connection and access the Plant-Treasure-Hunt app on your smart device.

3. Navigating the Plant-Treasure-Hunt app. Each "plant station" in the plant-treasure-hunt game is comprised of a four-part sequence (Figure 2). Each sequence includes a plant, a local story about the plant, a question about the story and a clue to the next plant. Once the game begins, your team will:

1) Scan the QR code on your "start" station sign, using the QR code reader on your smart device.

2) A local story about the plant you are standing in front of (the first plant of your trail) will appear on the screen of your device. This story has been shared with you by a Kenora resident. Read or listen to this story and then hit the "Continue" button on your screen.

3) A question about the story you just read will appear on the screen. Type in the correct answer and hit the "Continue" button once again. You may return to the story text before you answer by hitting the "Back to Story" button.
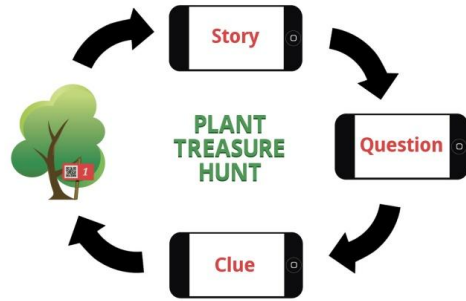
If your answer is incorrect, you will receive a "try again" message on your screen. You will be able to return to the story text at any time. If your answer is correct, the clue

Figure 2

to the next plant will appear on your screen. Using the knowledge you acquired during your pre-instruction in class, you should be able to solve the clue and discover the next plant on your team's trail. Use the map for navigating – the approximate location of your next "plant station" is marked there.

4) Once you think you've found your next "plant station" look for the stations sign, hidden under or in the plant. Remember, the sign should have your team's colour, a QR code and the number of the correct station. Scan the QR code and repeat stages 2-4. Keep going untiil you find all 15 plants on your team's trail.

4. <u>On your mark, get set, go</u>! Either the Lake of the Woods Discovery Centre worker or your teacher will demonstrate to your team how to navigate the Plant-Treasure-Hunt app and play the game. If you have any questions, now would be the time to ask. When all teams are ready the game will begin.

5. <u>Finish</u>! When you locate the last plant on your team's trail, scan the QR code on its sign. Read the local story about the local plant, answer the question about the story, and if your answer is correct a "Congratulations" message will appear on the screen of your device, along with the time it took your team to complete the Plant-Treasure-Hunt. Return to the Lake of the Woods Discovery Centre and approach a Lake of the Woods Discovery Centre worker or your teacher.

Good luck and have fun!

_____student instructions sheet # 1 ends_____

3. The teacher will make sure that each team has at least one functioning smartphone/i-Pad and preferably one spare device. In the absence of a smart device, Lake of the Woods Discovery Centre will provide one.

4. The teacher will make sure that each team downloaded a QR code reader app onto their smart device.

5. Each group will be given a map of their individual treasure hunt trail either in printed or digital version. The digital version will be accessible online, using their smart devices.

6. The teacher will make sure that each team locates their "start" station.

7. The teacher and Lake of the Woods Discovery Centre workers will verify the wifi connection on site and help students access the Plant-Treasure-Hunt app on their smart devices.

8. Once everything is in place, the plant-treasure-hunt will begin.

9. The first team to complete their trail will be the winning team and will receive a prize, as determined by the Lake of the Woods Discovery Centre and the outdoor education teacher.

10. At the end of this part, or during the next class, the teacher should facilitate a follow-up discussion with the students, encouraging them to reflect on the game and share experiences.

Part 3 - Find in the Wild: In this part the students will look for the 25 plants in the wild, outside the Discovery Forest. The students will photograph each plant they manage to find, and upload the photos onto a Pinterest board online.

Group Size: Small groups (3-5 students each) working simultaneously
Duration: Flexible; weather permitting; determined by the outdoor education teacher
Location: Outdoors of Kenora Region
Materials:
- Smartphone /i-Pod/digital camera (for each student)
- GPS device/GPS enabled smartphone (for each student)
- Access to the Internet
- Pinterest account (for each group)
- Instruction sheet
Method:
1. The teacher will determine the length and specific dates of this part of the activity, based on the weather and the presence of the local 25 plants during specific seasons.
2. The students will continue working in the same teams, competing against each other. The teacher will hand each team the following instruction sheet:

Student Instructions Sheet #2-- Find in the Wild:
Hello team! You are about to embark on a mission to locate the local Kenora plants outside the Discovery Forest. This time, though, 15 plants are not enough – you will have

to find them all. You are competing against your fellow teams once again! The first team to correctly identify and collect photos of all of the local 25 plants will be the winning team and will receive a prize.

READ THE WHOLE INSTRUCTIONS SHEET BEFORE YOU BEGIN
Follow these instructions:

1. <u>Open Pinterest account</u>. Go to: http://pinterest.com/ and open an account for your team. Include the colour of your team in the user name, for example, "Kenora Team Red." Afterwards, create a new "board" and name it "Kenora Plants." Use the following links for help:
URL for instructions on creating a new account:
https://en.help.pinterest.com/entries/22997373-Join-Pinterest
URL for instructions on creating a new board:
https://en.help.pinterest.com/entries/22997027-Add-edit-or-delete-a-board

2. <u>Discuss your strategy</u>. You will have to collect photos of all of the local 25 plants within the timeframe given to you by your outdoor education teacher. Discuss your team strategy and decide where and when you are going to look for plants. You will search for the plants outside the Discovery Forest, meaning, in their natural environment. You will have to keep an eye out for the plants at all times, as you may find them during a school trip, a family camping weekend or even on your way to meet a friend.
Note: Although this is a team challenge, team members are NOT required to work in their teams at all times. For instance, if Dan from the red team found two of the 25 plants while hiking with his brother, he should record the GPS coordinates, photograph the plants, upload the photos to his team's Pinterest account and inform his team mates about it.

3. <u>Follow these instructions</u> when locating a plant from the list:
1) Take 2 photographs of the plant: a close-up and a photo where the plant is seen in relation to its environment. You may include yourself in the photographs.
2) Take the exact GPS coordinates of the plant's location and send them to your outdoor education teacher. Do NOT reveal them to your rival teams.
3) Upload the photos of the plant to your team's Pinterest board, indicating the name of the plant and the date the photo was taken in the description section.
4) Pay attention to your outdoor education teacher's comments on your uploaded photos. The teacher will verify whether your plant identification is "correct" or "incorrect." In case of the latter, you will need to correct your mistake. You may want to consult with your teacher.

5) When your team has 50 photos--2 photos for each plant – on its Pinterest board, inform your outdoor education teacher immediately.

4. <u>Check your equipment</u>: Make sure that you have:

- Smartphone /i-Pad/digital camera (at least 2 per team)
- GPS device/GPS enabled smartphone (at least 2 per team)
- Access to the Internet
- Pinterest account (for each group)

5. <u>Follow your rival teams on Pinterest</u> in order to monitor their progress and stay ahead of their game.

6. <u>Finish!</u> The first team to find, correctly identify and collect 50 photos of all of the local 25 plants (according to the instructions) will be the winning team!

Good luck and have fun!

_____student instructions sheet # 2

ends_____

3. Weather permitting, the students will begin to look for the plants outside the Discovery Forest. For instance, during other school trips, family trips on weekends or even on their way to school.

4. The first team to complete the challenge will receive a prize, as determined by the outdoor education teacher.

5. A the end of this part, the teacher should facilitate a follow-up discussion with the students, encouraging them to reflect on the Find in the Wild part of the activity and share experiences.

<u>Part 4 - Photo Exhibit</u>: In this part the students will create a photo exhibit featuring all the pictures taken by the students throughout the Find in the Wild part. This part should include a festive event, as well as the launching/update of an online gallery.

Group Size: The whole class

Duration: 2-3 hours event + ongoing online exhibit

Location: Lake of the Woods Discovery Centre/the high school + online

Materials:

- Suitable location available to host a photo exhibit
- Access to the Internet; photo exhibit website

Method:

1. Students will build and design a website that will serve as an online gallery for the photos they took during the Find in the Wild part. The gallery website will serve the students who would participate in the Plant a Story activity in the following years. Meaning, the website should be a searchable database as well as an evolving gallery. Alternatively, the school may hire a developer and a designer to build the website. Another option would be to set up a blog, using a free template that supports a gallery format.
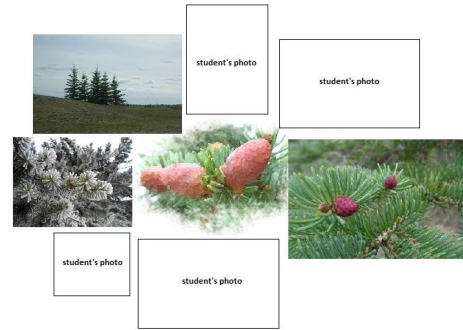

Figure 3

2. The teacher and the students will upload all the photos that were collected by the students during the Find in the Wild part onto the gallery website/blog. But this time the classification will be by the plant species and NOT the team who took the photos. For example, all Red Pine photos will be in one group and all juniper photos will be in another group. Each group of photos should comprise a small mosaic, for example, as shown in Figure 3. The picture in the middle could be a photo or a drawing by a local artist.

Eventually, all the plant mosaics together should comprise a big mosaic, containing all the photos, and reflecting the diversity of the students who took them. Creating this gallery and the photo exhibit is the students' chance to "plant" their own local story together – a story of diversity, collaboration and friendship.

3. Once the online gallery is ready, the teacher and the students, in collaboration with the Lake of the Woods Discovery Centre should arrange and coordinate an event for launching the students' photo exhibit. The event could be hosted either by the Lake of the Woods Discovery Centre or by one of the high schools. The photos should be arranged and presented in the same manner as in the gallery website. Invite the students' families, Kenora residents who contributed their stories to the project and anyone else.

4. At the end of the activity, the teacher should facilitate a follow-up discussion with the students, encouraging them to reflect on the photo exhibit experience, as well as the whole Plant a Story activity. Suggested discussion topics and questions are:

1. Reflect on your experiences in the different parts of this activity.

2. Did you have a favourite part? If yes, what was it? Why that part?

3. Discuss students' experiences while working in teams. Was it different from other team activities they took part in? In what way?

4. In part 2 of the activity, the students were searching for the plants within the boundaries of the Discovery forest, whereas in part 3 they looked for the plants in their natural environment. Compare these two experiences.

5. What did you learn from the local stories about the local plants?

6. Did you have a new cultural experience during this activity? Please elaborate.

7. Why, in your opinion, is the name of this activity is Plant a Story?

8. Do you feel that you "planted" your own story during this activity? As an individual or as part of a group/team?

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APPROVAL CERTIFICATE

March 8, 2013

SSHRC

TO: **Inna Miretski**   (Advisor I. Davidson-Hunt)
           Principal Investigator

FROM: **Susan Frohlick, Acting Chair**
           Joint-Faculty Research Ethics Board (JFREB)

Re: **Protocol #J2013:025**
           "Game Changer: Encouraging Cross-cultural Collaboration through Fun,
           Interactive Interpretive Experience in the Discovery Forest, Kenora, Ontario"

Please be advised that your above-referenced protocol has received human ethics approval by the **Joint-Faculty Research Ethics Board**, which is organized and operates according to the Tri-Council Policy Statement (2).   **This approval is valid for one year only**.

Any significant changes of the protocol and/or informed consent form should be reported to the Human Ethics Secretariat in advance of implementation of such changes.

Please note:

-      If you have funds pending human ethics approval, the auditor requires that you submit a copy of this Approval Certificate to the Office of Research Services, fax 261-0325 - please include the name of the funding agency and your UM Project number.   This must be faxed before your account can be accessed.

-      if you have received multi-year funding for this research, responsibility lies with you to apply for and obtain Renewal Approval at the expiry of the initial one-year approval; otherwise the account will be locked.

The Research Quality Management Office may request to review research documentation from this project to demonstrate compliance with this approved protocol and the University of Manitoba *Ethics of Research Involving Humans*.

The Research Ethics Board requests a final report for your study (available at: http://umanitoba.ca/research/orec/ethics/human_ethics_REB_forms_guidelines.html) **in order to be in compliance with Tri-Council Guidelines.**

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