THE PERCEIVED OUTCOMES OF PARTICIPATION IN A GATINEAU PARK INTERPRETIVE PROGRAM: AN ANALYSIS OF QUESTIONNAIRE COMMENTS

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Abstract

This paper is part of a larger study, patterned on a modified version of Benton's (2009) model of the four conceptions of interpretation, which uses a questionnaire to investigate the environmental and recreational outcomes of a park interpretation program at Gatineau Park in Chelsea, Quebec. Results from an analysis of three open-ended questions at the end of the questionnaire are presented. Findings reveal that the interpreters use several effective techniques in the delivery of their programs; they are knowledgeable and have excellent communication skills. It was also found that participation in the interpretive programs influence and increase environmental concern for some participants, while it has no impact on those who feel that they are already environmentally conscious. Finally, participation in a nature interpretation program is perceived as a satisfying recreation experience for some, which contributes to the overall success and effectiveness of the program.

1.0 Introduction

For the purposes of this study the following definition of interpretation as presented by Beck and Cable (2002) will be used:

Interpretation is an educational activity that aims to reveal meanings about our culture and natural resources. Through various media –including talks, guided tours, and exhibits –interpretation enhances our understanding, appreciation, and, therefore, protection of historic sites and natural wonders. Interpretation is an informational and inspirational process that occurs in our natural parks, forests... interpretation can add to a fuller understanding of their beauty and meaning, as well as protect their integrity. (p. XI)

Based on this definition, interpretation is meant to be an activity that is both informational and inspirational. It allows individuals to obtain a better understanding of a place and develop a deeper appreciation for the place, so that in turn, they may come to protect it. This study focuses particularly on the nature interpretation programs provided at Gatineau Park, located in Chelsea, Quebec, Canada.

1.1 Benton's Model – Four Conceptions of Interpretation

Benton (2009) created a model of interpretation that included four conceptions or goals of interpretation. The **first conception is** connecting visitors to resources. Benton explained that "the primary goal is for interpreters to use their special knowledge of nature, culture, and history and their communication and artistic skill to reveal what is not readily apparent to peoples' emotion. intellect, and spirit" (p. 8). This conception is concerned with techniques used in an interpretive program and the interpreter's ability to make connections between the visitors and the resource. Beck and Cable (2002) provided a set of 15 guiding principles of interpretation to be used as techniques for effective interpretation. These 15 principles are widely used in the field of interpretation as they are considered excellent techniques for successful interpretation. The second conception is conveying mission and influencing behaviour. This conception reflects the ability of the interpretive program to put forth a valuable message and influence visitors' pro-environmental behaviours and intentions. The third conception is encouraging environmental literacy. Benton explained that interpretation "seeks to introduce people to ecological relationships" (p. 10), and "move visitors through the stages of awareness, appreciation, knowledge, skill, and motivation resulting in environmentally responsible behaviour" (p. 12). Ideally, encouraging the visitors to become environmentally literate should motivate the participants to become environmentally responsible park visitors. Finally, Benton's (2009) fourth conception is promoting tourism outcomes. This conception is concerned with the use of "travel ideas to appeal to visitors' leisure interests and to promote spending as a means of improving the economic benefits of natural and cultural tourism" (Benton, 2009, p. 10). In Gatineau Park the majority of park visitors are local residents. Only 7.4% of the 2.7 million park visits per year are tourists from outside the National Capital Region (Environics Research Group, 2012). Since tourism outcomes are less relevant, and therefore less applicable to the proposed study, Benton's fourth conception was modified to focus on recreation satisfaction rather than tourism outcomes. According to Beck and Cable (2002) interpretive activities are meant to be meaningful, educational and recreational, therefore it is important to examine the participants' satisfaction with their recreation experience. This conception is concerned with the interpretive program's ability to provide a positive and enjoyable recreation experience. Ideally, a positive recreation experience will engage the participants and enhance the environmental outcomes by providing a pleasurable and memorable experience.

2.0 Review of Literature

Within the literature regarding parks, outdoor recreation, and interpretation, it is abundantly clear that park staff have a great deal of difficulty attempting to balance the protection of natural resources and ecological integrity with high quality recreation opportunities (Marion & Reid, 2007). While this issue is being managed by a variety of different strategies, interpretation programs are sometimes overlooked as potential management techniques. Essentially, "the management goals of interpretation in the context of natural areas focus on change to low-impact behavior and ultimately long-term conservation behavior" (Kim, Airey, & Szivas, 2011, p. 322).

2.1 Interpretation and Environmental Outcomes

Both short-term and long-term behavioural changes can be derived from environmental interpretation programs based on the type of technique used to persuade the visitors' actions. According to Kim et al. (2011), there are two routes to persuasion: the peripheral and the central. The peripheral route to persuasion is effective for short-term modifications of behaviours as it occurs when the recipient is either unmotivated or lacks understanding (Kim et al., 2011). Conversely, the central route to persuasion "relies on visitor attention, consideration and internalisation of the message" (Marion & Reid, 2007, p. 11). After careful consideration, the values are internalised and become part of the individual's belief system, which results in long-term behavioural changes (Kim et al., 2011; Marion & Reid, 2007). While both short-term and long-term behaviour changes are important, interpretive programs aim to persuade their participants to make long-term changes to their behaviour or lifestyles, so that the values are internalized and become important to the individual.

In order to produce more long-term behavioural changes, new attitudes and beliefs must be adopted by individuals to ensure their ongoing commitment to the preservation of the landscape. Benton (2009) argued that encouraging environmental literacy would generate a deeper understanding and appreciation of the landscape and lead to environmental awareness and long-term conservation values. Unfortunately, according to the study conducted by Kim et al., (2011), the weakness of interpretation is that it has limited effects on promoting long-term conservation behaviour. Thus, different strategies should be considered for different types of interpretation. Kim et al. (2011) also suggested that there are a number of considerations in addition to the strategy chosen:

the level of engagement, the direct and relative impacts of the type of media, the quality of programs offered, or the intensity and affective reactions to the persuasive message, will validate effective techniques that might be useful to improve the design of interpretive programs. (p. 332)

Focusing on the intensity of the programs may be a beneficial tool in determining how intense the interpreter must be. Munro, Morrison-Saunders and Hughes (2008) conducted a desktop review of 21 empirical studies that aimed at evaluating environmental interpretation in natural areas. Within their review they found that "more intense interpretation [as opposed to non-personal, or less interactive interpretation]...has a greater probability of influencing the visitor" (Munro et al., 2008, p. 2). However, it is also important to recognize that in most cases park visitors are participating in these activities as part of their leisure time, so it is important for visitors to enjoy their visit because if they have a positive experience, they are more likely to support management strategies and accept the park's values (Kuo, 2002).

2.2 Interpretation and Recreation Outcomes

In most cases interpretive program participants choose to attend these programs and participate in them as a recreational or leisure activity. Therefore, the programs must be entertaining and provide an enjoyable recreation or leisure experience. In Powell and Ham's (2008) study of ecotourism interpretation programs in Galapagos National Park, visitor experience and satisfaction were included as variables. Powell and Ham stated that enjoyment and satisfaction were important variables for evaluating the interpretation programs, as well as for understanding and predicting visitor behaviour. According to Powell and Ham (2008),

If tourists do not find the transmission of information enjoyable, they are unlikely to pay attention to its content...enjoyment is one of the key components of successful interpretation and is thought to mediate the effectiveness or likelihood of influencing behavioural outcomes. (p. 475)

The findings of Powell and Ham's study revealed that the participants had high levels of enjoyment and satisfaction during their interpretive experience. While Powell and Ham's study did not suggest that the interpretive experience could be considered a recreation experience, enjoyment and satisfaction are elements that are also conducive to a recreational experience.

3.0 Purpose of Study

This study is one part of a larger study that aims to determine if the interpretation programs provided by Gatineau Park and the Friends of Gatineau Park have a significant impact upon visitors' environmental and recreational outcomes. The study investigated whether the interpretive program is successful in: connecting the participants/park visitors to the resource through the use of effective interpretive techniques, conveying the agency's message as well as influencing visitors' behavioural intentions towards the natural environment, providing knowledge and increasing environmental literacy, and in offering a satisfying recreation experience.

3.1 Research Questions from the Larger Study

1. To what extent is a park interpretive program able to connect visitors to the resource through the use of interpretive techniques?

- 2. What is the perceived impact of a park interpretive program upon **pro-environmental intentions**?
- 3. What is the perceived impact of a park interpretive program upon **environmental literacy**?
- 4. To what extent is a park interpretive program perceived as a satisfying recreation experience?

4.0 Methods

The part of the larger study presented in this paper focuses on answers to open-ended questions concerning the participants' perception of their recreation experience during the interpretive program (Research Question #4), and the impact of the program on their environmental concern (Research Questions 2 &3).

4.1 Programs Studied

Both the National Capital Commission (NCC), as well as the Friends of Gatineau Park agency, provide interpretive programs at Gatineau Park. Throughout the year there are several seasonal interpretive programs offered in either French or English, or offered bilingually. While most of the interpretive events offered by the NCC occur on the weekend and are free, some of the interpretive programs offered by the Friends of Gatineau Park occur during the week or in the evening and have a small fee of about \$15. The programs are led by an experienced naturalist and are approximately two hours in duration. The programs often begin with an indoor presentation at the Gatineau Park Visitor Centre, followed by an outdoor excursion to one of the nearby trails for the remainder of the interpretation program. The interpretive programs included in the analysis presented in this paper are the winter and spring weekend interpretive programs provided by the NCC and the winter and spring dusk series interpretive programs provided by the Friends of Gatineau Park.

4.1.1 NCC Programs

Animal Tracking on Snowshoes: This is a guided snowshoe tour with a nature interpreter to discover a winter forest full of life. The program begins with an indoor presentation followed by an outdoor snowshoe hike to look for animal tracks and signs of animal life. This program is free and is offered in both French and English.

Spring Flowers have Sprung: This is a guided walk with an experienced naturalist to learn about what makes spring flowers unique. The program begins with an indoor presentation followed by an outdoor walk on the universally accessible Sugarbush trail to observe the spring flowers. This program is free and offered in both French and English.

Sights and Sounds of Birds: This is a guided walk with an experienced naturalist to learn how to identify birds by their songs. The program begins with an indoor presentation followed by an outdoor walk along the Sugarbush trail to look and listen for birds. This program is free and offered in both French and English.

4.1.2 Friends of Gatineau Park Programs

Snowshoe Under the Stars: This is an evening snowshoe program with an experienced naturalist to learn how animals and plants face the many challenges of winter survival. This program is bilingual and has a small fee.

Owl Prowl: An experienced birdwatcher provides an indoor presentation on the owls that live in Gatineau Park, including their unique features, behaviours, and calls. Following this presentation the group moves outside and listens for answers to their owl calls. This program is offered in French and English and has a small fee.

Frog Chorus: An experienced amphibian specialist provides an introduction to the frogs, toads, and salamanders of Gatineau Park. This program begins with an indoor presentation on the amphibians and their calls followed by a walk to a nearby pond to listen to the frog chorus and identify the amphibians. This program is offered in English as well as bilingually (in which the interpreter alternates between French and English), and has a small fee.

4.2 Questionnaire

Data were collected through the use of a survey questionnaire on site at Gatineau Park. The questionnaire included four scales to measure the four components of Benton's model: interpretive techniques; pro-environmental behavioural intentions; environmental literacy; and the modified recreation satisfaction. In the final section of the questionnaire, questions on basic demographic and previous Gatineau Park and interpretive program experience were included. Additionally, three open-ended questions regarding the participants' interpretive experience including: (a) any general comments about the program, (b) recreation satisfaction, and (c) environmental concern. This paper focuses on the analysis of these three open-ended questions.

4.3 Sample

Participants were recruited through announcements at the beginning or end of each interpretive program along with the distribution of recruitment notices or information letters. While this study is still in progress, the findings so far are based on a sample of 58 participants from the winter and spring nature interpretive programs at Gatineau Park. Participation in the study was open to any park visitor over the age of 18 who participated in a nature interpretive program during the data collection period.

4.4 Data Analysis

Data from the open-ended questions were systematically analyzed through a combination of two techniques. To begin, the data were grouped together based on question (questions 1, 2, & 3 above). Then for each question the responses were colour coded based on which interpretive program the participant attended. Subsequently, an enumeration technique (Henderson & Bialeschki, 1995) was used for each individual question to group and place responses into positive, negative, and neutral categories. Next, the responses in each category were examined for common themes and contradictions by using a constant comparison

(Henderson & Bialeschki, 1995) technique. Finally, once emergent themes were determined, tables were created to display the data. Each table provided a list of the coded responses, the number of responses, and their category (positive, negative, or neutral). The tables were then used as a summarizing tool for the researcher to determine categories and themes based on the responses to the three open-ended questions.

5.0 Findings

The socio-demographic findings revealed that approximately 60% of participants were female. The largest age group was 25-34 years of age, as indicated by approximately 25% of respondents, the second largest age group was 45-54 with 19% of respondents, and the third largest age group was 35-44 with 17% of respondents. Seventy-seven percent indicated that they had college or university degrees or higher levels of education. Seventy-six percent indicated that they live in National Capital Region, and 79% visit the park at least 1-2 times per year if not more, however, only 7 out of 58 participants (12%) indicated being a member of the Friends of Gatineau Park. It is interesting to note that 74% of participants had indicated that they had previously participated in an interpretive program, however for 62% of participants, this was their first interpretive program at Gatineau Park. Following participation in the program, 68% indicated that they intend to attend another interpretive program at Gatineau Park, and 87% plan to visit the park again.

5.1 Comments on Interpretation Program

The first open-ended question asked participants the following question, "please write any comments you may have on the specific interpretive program that you attended." While there were 38 responses to this question, many responses contained multiple comments on various aspects of the program for a total of 63 comments. A general look at the overall comments revealed that 50 of the comments were primarily positive, nine of the comments were neutral, and four of the comments were negative. More specifically, within the positive comments several themes emerged that were common among many responses. For example, 12 of the responses included positive comments on the interpreter by stating how excellent or knowledgeable their interpreter was. A comment of high praise for the interpreter was the most common theme that emerged in the responses to this first open-ended question. Some examples include:

- "Outstanding Guide full of information and lots of energy."
- "I thought the interpretive guide was great. She was friendly and knowledgeable. She provided interesting facts that related to the audience"
- "The guide was excellent; very knowledgeable."
- "It was a fantastic presentation, very knowledgeable interpreter...about nature, the environment and Gatineau Park. She made the entire experience very interesting and memorable."

The second emergent theme was that of education; 11 responses included positive comments about learning something during their participation in the program such as learning to use snowshoes:

- "The snowshoe activity was excellent first time on show shoes and I plan to do this again in the future."
- "It was also a great opportunity to try snow shoeing for the first time. We now plan to buy snow shoes and return to the Gatineau Park trails in the winter."

The third major theme arose when eight participants commented on how interesting the program was, for example one participant wrote "There were several interesting things about the animals that we learned that day that I still recall." Other themes found in the positive comment category for this question included having fun, experiencing something new or for the first time, or even simply being in the presence of nature's beauty. Three participants expressed how much they appreciated that the programs were free (those who participated in the Animal Tracking program, the Spring Flowers program, or the Sights and Sounds of Birds program), For example: "I just can't bellielve it's free..." and "it was pretty awesome that it was both free, and provided snowshoes..." Furthermore, of those who participated in the Owl Prowl program and the Sights and Sounds of Birds program, two made positive comments about hearing a bird or an owl respectively. Two participants also expressed positive comments on how well the program was organized as well as the language used during the programs and appreciated that the programs were offered in both French and English or were bilingual programs. Finally, three participants positively commented on the overall program with short statements, however provided no reason for what specifically contributed to those positive remarks, for example "It as a great experience," "It was quite [d]elightful" and "They are all good".

In contrast to these positive comments, there were also four negative comments that were raised which were quite specific to the program that was attended. For example, a participant from the Snowshoe Under the Stars program expressed that the excursion was too short, and that a longer program would have been better. A participant from the Animal Tracking on snowshoes felt that the "program [was] mostly for kids", while a participant from the Owl Prowl program felt the program was far too long and due to the lengthy indoor presentation was not designed for children.

Furthermore, some responses fell in between positive and negative and provided comments that were much more neutral in nature or included both positive and negative comments. In this category there were some comments that were somewhat more positive as three expressed that the program was interesting and one mentioned that the interpreter was excellent. Another participant mentioned that a longer program with opportunity to stop and have lunch would have been better, while another expressed the following "...getting away from crowds is my objective, but of course that trail was very busy this past weekend...

The information we were given was very interesting. It is too bad the heavy snowfall meant there were no tracks visible." Finally, one participant from the Frog Chorus program stated that participants in this program needed to be better notified about bringing proper equipment such as rain boots and a flashlight in order to be adequately prepared to participate in this program.

5.2 Recreation Experience

The second question asked participants to "please comment on your satisfaction with your recreation experience." Similar to the first open-ended question, there were 34 individual responses overall, however many responses included several different comments for a total of 45 comments. An overall look at the comments discovered 36 positive comments, seven neutral comments, and two negative comments. Within the positive comments category, the most common responses were those that expressed a satisfying or enjoyable recreation experience but provided no reason. For example:

- "I enjoyed the experience."
- "Very satisfied great program."
- "I was quite satisfied with the experience."
- "Wonderful, I would recommend this to anyone,"

There were a total of 14 responses like the ones above that provided no reason for their positive recreation experience, only short statements indicating that they enjoyed their interpretive experience. Other participants provided some explanations for their satisfying recreation experience. For example, four respondents included learning as a main factor that contributed to their recreation satisfaction, another four mentioned that participating in the program with their family contributed to their positive recreation experience, and another four credited their excellent interpreter as the reason for their enjoyment of the program such as "Very interesting, very informed guide. It was a pleasure..." Other contributing factors to a satisfying recreation experience included: experiencing nature's beauty, the environment/atmosphere, and trying something new like snowshoes as was expressed in the following quote:

"I enjoyed my first snowshoeing experience. It gave me a comfort level where now I will feel confident in returning to the park with family and friends and rent snowsho[e]s. It also taught me about the park in general, the types of animals that live in the park and its many trails.,"

Other themes included: having fun, the interesting program, the program being free (i.e., Animal Tracking, Spring Flowers, Sights and Sounds of Birds), getting exercise, hearing something (i.e., birds), and changing one's daily routine.

Conversely, only two negative comments were made on factors that detracted from participants' recreation experience. A participant from the Frog Chorus program expressed that his/her experience would have been greatly improved had he/she been notified about bringing proper equipment such as a light and appropriate footwear to walk in the water. Another participant from the Sights and Sounds of Birds program mentioned the following "Could have been better if the path we were on was not near a busy road [that] kind of ruined the outdoor experience." Since the trail was near a busy road the sounds of vehicles detracted from the experience.

Within the neutral category for this question, many respondents mentioned that they did enjoy their experience but also expressed some concerns that detracted from their experience such as the trail being too crowded, no need for snowshoes since the trail was so compacted, the weather being too cold to have so many lengthy stops, and the lack of traffic control when crossing the highway at the beginning of the excursion, for example this participant wrote "Very nice program, but crossing the highway was awful and very much detracted from the experience ... there needs to be some kind of traffic control." (Animal Tracking on Snowshoes program).

5.3 Environmental Concern

The final open-ended question asked the following "please comment on how participation in the interpretive program influenced your environmental concern." As was seen in the second open-ended question, there were 34 overall individual responses, however the comments in this section were much shorter than those for the previous two questions bringing the total number of comments for this section to only 35. When asked how the interpretive program influenced their environmental concern, 16 responded positively (environmental concern increased), 14 responded negatively (no change in environmental concern) and five responded neutrally (their current level of environmental concern was either enhanced or re-confirmed). Out of the 16 positive responses the most common response related to an increase in concern for wildlife and their habitats (five participants) as illustrated by the following examples:

- "It made me more aware of wildlife signs and habitats. I will aim to be more careful about how I live to preserve nature."
- "Knowing more about the animals in the park makes me appreciate it more."
- "The interpretive program influenced my concern on the enviro[n]ment by showing me the needs of owls in the environment, and therefore what I can do to help[]protect them."

Three respondents indicated that their interest in the environment/nature increased, for example one participant wrote "It made me more interested about the environment. It was fun to learn about nature in an outdoor setting. It was a lot more interactive." Others noticed an increase in environmental knowledge, environmental awareness, and an appreciation for park conservation (2 responses each), for example "It made me more conscious of my environmental impact." A participant from the Frog Chorus program expressed that they will now be more careful with their actions when near ponds, another participant from the same program expressed concern about the proximity of human structures and how that affects the ecosystems.

Those who responded to the question with more neutral comments explained that they were already fairly environmentally conscious however participating in the program enhanced their level of environmental concern or participating in the program helped remind them of their environmental concern or re-confirmed their environmental concern.

Finally, the responses from the 14 comments in the negative category could easily be divided into two sub-categories. The first sub-category included those who expressed no change in environment concern. Five respondents stated that the program had no impact on their environmental concern or influenced any change in their environmental concern, but provided no further reasons. For example:

"My environmental concern was mostly unchanged."

"I am at the same level I was coming in regarding my environmental concern"

The second group (consisting of nine responses) included those who stated that the participation in the interpretive program had no influence on their environmental concern because they were already very environmentally conscious/active/aware prior to participation in the program. As a result these participants do not need to be influenced to become more environmentally conscious because they already felt that they are knowledgeable and aware. Examples of this category include:

- "I am always environmentally concerned so do not need to be influenced..."
- "I am already very interested in nature and the env[i]ronment that is why I was there!"
- "I'm already quite environmentally concerned, so the interpretive program didn't influence it."

6.0 Conclusions and Recommendations

While the majority of the comments from all the open-ended questions were positive it is important to note that the negative and neutral comments are equally important since the answers to these questions inform us as to what is working, what is not, what should be maintained and what should change. Based on the findings from the first open-ended question it is clear that the interpreters for these programs are excellent and knowledgeable, and are effectively providing interesting information that is both informative and fun. These qualities are some of the key guiding principles of interpretation as outlined by Beck and Cable (2002), such as being knowledgeable, effective communication skills, providing the right amount of information that is both stimulating and meaningful. Furthermore, participants seem to appreciate that many programs are free of charge and offered in both official languages; these may be key selling points that spark the interest of the participants in the first place which is of course the first guiding principle of interpretation (Beck & Cable, 2002). However, it is also clear that interpreters need to know how to gauge their audience and how to provide a program with participants across a wide age range. Focusing too much on the children causes adults to feel bored, while focusing too much on adults, causes children to be overwhelmed or restless.

Alternatively, perhaps the programs should be advertised as oriented to families, children, or adults so that park visitors can make informed decisions about their participation. According to Beck and Cable (2002), programs for seniors, children, and teenagers should follow fundamentally different approaches. Programs designed for specific age groups may be a more practical way to deliver programs that are stimulating for participants of all ages.

Additionally, Beck and Cable (2002) argued that recreation is one of the key elements of successful interpretation, and promoting optimal experiences is one of the 15 guiding principles. Based on the findings from the second open-ended question, the interpretive programs are certainly offering many opportunities for participants to have a highly satisfying recreation experience; however, there are several factors that detract from the recreation experience that should be addressed. For example, it is important that every effort is made to notify participants if any equipment may be needed for full participation in the program such as flash lights and boots for the Frog Chorus program and binoculars for the Sights and Sounds of Birds program. If technology or specific equipment is introduced into the program, it must be done carefully and thoughtfully (Beck & Cable, 2002). Taking this precaution would help to make sure all participants are adequately informed and have the opportunity to participate and fully experience the program. With regards to the difficulty of crossing the road to get to the snowshoe trail for the animal tracking program, perhaps a crosswalk could be created in that area to help reduce the flow of traffic and allow people to cross. Alternatively, in order to reduce this difficulty as well as reduce the amount of noise disruption as a result of the passing vehicles, perhaps the programs could be arranged at a time when there is less traffic or use a trail that is not quite so close to the road. In order to promote optimal experiences the interpreter must design the program thoughtfully (Beck & Cable, 2002) with the surroundings in mind. Also, as mentioned previously, the interpreter needs to be able to gauge their audience. If the weather poses a significant problem, the interpreter must alter the program to suit the needs of the participants; for example if it is very cold perhaps it is best to stop for shorter periods of time in order to keep the group moving as much as possible.

Finally, based on the findings from the third open-ended questions it is encouraging to see that the programs are positively influencing some participants with regards to their environmental concern. As was stated in the literature review, interpretation can be an effective method of raising environmental awareness; however, many participants also indicated that the program had no influence on them or that they are already environmentally aware or concerned. What can be done for those who are already environmentally conscious? Perhaps some more advanced programs could be developed for those who feel they are already environmentally knowledgeable. As previously mentioned, Munro et al. (2008) argued that the greater the intensity of the interpretation the greater the probability of influencing the participant. Some more advanced programs may be more intense, with more detailed information and more interaction, which may provide the participants with more learning opportunities to expand their knowledge or other opportunities for growth and further development.

Overall it is clear that nature interpretation programs can be quite successful in influencing environmental concern as suggested by the relevant literature; however, interpretation seems to be ineffective for some who are already environmentally conscious. There is a significant gap in the literature related to the impact on environmental awareness for the environmentally aware. It is important that this problem be addressed in order to improve these types of programs or perhaps even develop new programs to cater to the wide range of park visitors. Further research is needed to determine how to provide programs that are more intense (Munro et al., 2008) to engage those who are already environmental conscious, and the types of programs that could help these participants further their environmental awareness. Additionally, alternative ways to measure levels of environmental concern also need to be considered because there is something to be said for the reinforcement of current levels of concern or the expansion of existing concern. Perhaps a "pre" and "post" program measurement of environmental concern would be a better way of gauging the effectiveness of the program.

Ultimately, it is also clear that participation in an interpretive program can be a satisfying recreation experience. While there has not been a significant amount of research done on the perception of interpretive programs as recreation experiences, there is some research literature that suggests that recreation is an important component of interpretation. As previously mentioned, Powell and Ham (2008) argued that satisfaction and enjoyment are key elements of successful interpretation that contribute to the effectiveness of the program. Therefore, the literature suggests that in order for interpretive programs to be successful, they must also be perceived as an enjoyable recreation experience. If participants have a positive and satisfying recreation experience it is more likely they will find the experience memorable and therefore retain more of the content of the program. This positive recreation experience facilitates more absorption of the program's content making the program more effective and influential just as Powell and Ham (2008) suggested. Conversely, it is important to note that seemingly minor factors can easily detract from a satisfying recreation experience so it is important for an interpreter to gauge their audience as best they can and design the program thoughtfully, just as Beck and Cable (2002) explained in their sixth and fourteenth guiding principles of interpretation. Lastly, it is undeniably important that Beck and Cable's (2002) 15 guiding principles are followed, so that interpreters continue to communicate effectively, provide meaningful knowledge in a fun and effective fashion, and share their passion with others while inspiring people. The findings of this study revealed that many of the guiding principles are being followed, however some are not, and making these few changes could positively impact the overall recreation experience of the program.

The modified version of Benton's model of interpretation used as a framework in this study, suggests that interpretation has goals related to connecting visitors to resources, pro-environmental behaviours, environmental literacy and recreation experience. While the open-ended questions did not distinguish between pro-environmental behaviours and environmental literacy, the results indicated that the goals of connecting visitors with resources, increasing environmental concern, and having a positive recreation experience were realized for some, although not all, of the participants in the programs studied. Thus the framework is useful for examining the multiple goals of interpretation programs.

7.0 References

- Beck, L., & Cable, T. T. (2002). Interpretation for the 21st century: Fifteen guiding principles for interpreting nature and culture (2nd ed.). Champaign, IL: Sagamore.
- Benton, G. M. (2009). From principle to practice: Four conceptions of interpretation. *Journal of Interpretation Research*, 14, 7–31
- Environics Research Group. (2012). *Gatineau Park research project*. National Capital Commision. Ottawa, ON. Retrieved from http://www.canadascapital.gc.ca/sites/default/files/pubs/gatineau_park_research_project_2011__executive_summary.pdf
- Henderson, K. A., & Bialeschki, M. D. (1995). Evaluating leisure services: Making enlightened decisions. State College, PA: Venture.
- Kim, K. K., Airey, D., & Szivas, E. (2011). The multiple assessment of interpretation effectiveness: Promoting visitors' environmental attitudes and behavior. *Journal of Travel Research*, 50(3), 321-334. doi:10.1177/0047287510362786
- Kuo, I. (2002). The effectiveness of environmental interpretation at resource-sensitive tourism destinations. *International Journal of Tourism Research*, 4(2), 87-101. doi:10.1002/jtr.362
- Marion, J. L., & Reid, S. E. (2007). Minimising visitor impacts to protected areas: The efficacy of low impact education programmes. *Journal of Sustainable Tourism*, *15*(1), 5-27. doi:10.2167/jost593.0
- Munro, J. K., Morrison-Saunders, A., & Hughes, M. (2008). Environmental interpretation evaluation in natural areas. *Journal of Ecotourism*, 7(1), 1-14. doi: 10.2167/joe137.0
- Powell, R. B., & Ham, S. H. (2008). Can ecotourism interpretation really lead to pro-conservation knowledge, attitudes and behaviour? Evidence from the Galapagos Islands. *Journal of Sustainable Tourism*, 16(4), 467-489.