

Fall 9-18-2019

## Exploring the Impacts of Climate Change Interpretation on Leisure Experiences

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He, Mu, "Exploring the Impacts of Climate Change Interpretation on Leisure Experiences" (2019). *TTRA Canada 2019 Conference*. 2.

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## Exploring the Impacts of Climate Change Interpretation on Leisure Experiences

### **Introduction and Literature Review**

National parks are considered as an outdoor classroom for learning about climate change because some places in these parks clearly display climate-driven environmental changes (Barrett & Mowen, 2014; Groulx et al., 2017). One of the examples is the Athabasca Glacier, a popular tourist destination in Jasper National Park, which has rapidly retreated about 1.5 km to 2 km over the last one hundred years (Parks Canada, 2017; Tennant & Menounos, 2013). The projected disappearance of this glacier by the end of this century has been predicted by the scientific model (Clarke et al., 2015). As a result of these environmental changes, tourism operators in this region have to modify tourism provision at this site. One of the options for modifying tourism products is providing interpretive programs about climate change at impacted sites because visible environmental changes make them powerful settings for climate change education (Parks Canada, 2010). Although the educational value of climate change interpretation at the Athabasca Glacier has been recognized, we know little about how this type of interpretation impacts visitors' leisure experiences.

Interpreting climate change might be challenging in a leisure context because for some people, it is a controversial topic with uncertainties (e.g. uncertain reasons and uncertain future) (Moser, 2010). Visitors may be worried, depressing, and upset when they learn about climate change and these feelings may negatively influence visitors' leisure experience. This concern is especially acute for commercial tourism operators because they are sensitive to visitors' leisure experience (Goldberg et al., 2018; McNicol & Rettie, 2018). Therefore, it is important to understand the potential impacts of climate change interpretation on their clients' leisure experiences.

This research used a commercial snocoach tour at the Athabasca Glacier as a study setting and examined how incorporating a climate change interpretive component into a commercial snocoach tour impacts visitors' leisure experiences. findings of this research would provide suggestions about the practice of climate change interpretation within a tourism context.

### **Method**

A laboratory-based experimental design was adopted to examine the impacts of the inclusion of a climate change interpretive program on the leisure experience during a commercial snocoach tour. This experiment was conducted during the summer of 2018 in a Canadian university, and students between 18 to 25 were selected as research participants. In the experiment, 60 research participants were randomly assigned into two groups, and 30 participants in each group. Both groups' participants were exposed to a simulated snocoach tour of the Athabasca Glacier in the form of a written script of the experience supported by photographs. One group of participants received a climate change interpretive component when they 'stepped onto the glacier' (the experimental group) while the other group of participants did not (the control group).

After the experiment, participants' leisure experiences were measured using the concept of overall satisfaction and Oh et al.'s (2007) measurement scale of tourist experiences, which originated from "experience economy" concepts including: education, entertainment, escapism,

and esthetics (Pine & Gilmore, 1999). All items were measured using a 7-point interval scale (1=strongly disagree to 7=strongly agree). T-tests were used to determine if there were significant differences between the two groups with regard to overall satisfaction and the key four experiential dimensions in Oh et al.'s (2007) experience measurement scale.

### **Findings**

For visitors' overall satisfaction, the experimental group had a significantly higher overall satisfaction with the simulated snocoach tour than the control group (means = 5.97 and 5.43, respectively,  $p < 0.05$ ). This means that participants in the experimental group were more satisfied with their simulated snocoach tour.

For Oh et al.'s (2007) four dimensions of leisure experiences, there was a significant difference between the control group and experimental group: educational dimension ( $p < 0.05$ ). The experimental group reported a significantly higher score in educational dimension than the control group. There were no significant differences between the two groups in terms of other three experiential dimensions: entertainment, escapism, and aesthetics. These results suggest that incorporating a climate change interpretive component did no harm to dimensions of entertainment, escapism, and aesthetics in visitors' leisure experiences. It even had great potential to help visitors learn about climate change.

Overall, the findings showed that incorporating a climate change interpretive component had significantly positive impacts on visitors' overall satisfaction and Oh et al.'s educational dimension of a leisure experience.

### **Conclusion**

The results of the experiment suggested that incorporating a climate change interpretive component into a commercial snocoach tour will have positive impacts on visitors' leisure experiences in terms of overall satisfaction and educational dimension. Further implications of practice and methodology will be discussed during the presentation.

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