

Department of Social Sciences

Honours Project

A Project entitled

The sensitivity and vulnerability of tourists to climate change:

Amusement parks in different climate zones

Submitted by

Wong Ka Yan

submitted to The Education University of Hong Kong

for the degree of *Bachelor of Education (Honours) (Geography)*

in April 2021

Declaration

I, Ms. Wong Ka Yan declare that this research report represents my own work under the supervision of Dr. Pei Qing, and that it has not been submitted previously for examination to any tertiary institution.

Wong Ka Yan

Date: 20th April, 2021

Abstract

Climate change is one of the main issues affecting humans and nature. Tourism is one of the human activities which is highly dependent on the weather and climate. Especially for weather-related activities, they are highly dependent on the weather conditions. Tourists are facing safety problems caused by climate change such as temperature-related health issues. Also, they may shorten or lengthen the vacation and make changes to the planned tourist activities. However, there are insufficient studies to investigate all the climate zones. Comparison of sensitivity and vulnerability of tourism activities in multi-destination need to be further investigated. And other common tourist activities expect weather-related outdoor activity are ignored in previous studies. Therefore, this study aimed to find out how Hong Kong young tourists' sensitivity and vulnerability to visiting amusement parks change and how do they respond to climate change. A qualitative approach was applied to explore Hong Kong's young-adult tourists' experience and perceptions by using semi-structured photo-elicitation interviews. 11 undergraduate students from different Hong Kong universities with different academic backgrounds were involved in the study. The major findings showed that Hong Kong young tourists are more sensible and vulnerable in visiting amusement parks under climate change issues. Their vulnerability is highly subjected to the nature of extreme weather events and personal experience and knowledge. They tended to make adjustments and change the visit to indoor activity when they face influential weather events (i.e. typhoons) while they can adapt to less influential weather events (i.e. heatwave and rainstorm) and make preparation for it. This study not only contributes to the operation of the amusement park but also helps other tourism-related industries to modify their policy and services. More resistant tourism industry can be developed.

Table of Contents

1. Introduction.....	p.6
2. Literature Review.....	p.7
a) Weather and climate.....	p.7
b) Climate Change.....	p.7
c) Tourism.....	p.8
d) Visual Methodologies.....	p.10
3. Research gap.....	p.13
4. Methodology.....	p.15
a) Qualitative Research.....	p.15
b) Participants.....	p.15
c) Data collection.....	p.19
d) Data analysis.....	p.22
5. Findings.....	p.23
a) Factors affecting tourist's satisfaction.....	p.23
b) Perceptions to climate change issue.....	p.24
c) Perceptions on tourists activities.....	p.25
d) Change of sensitivity on visiting amusement parks.....	p.27
e) Vulnerability to extreme weather events.....	p.28
f) Behaviors under extreme weather events.....	p.29
6. Future Implications.....	p.33
7. Limitation.....	p.36
8. Conclusion.....	p.37

Reference.....	p.38
Appendices.....	p.41
a) Interview questions and rationale.....	p.41
b) Thematic categories from coding approach.....	p.49
c) Interview transcript (significant responses).....	p.51
d) Consent form and information sheet for participants.....	p.71
Tables and Charts	
a) Background of 11 college students.....	p.16
b) Content of images and rational for selecting these images.....	p.21

1. **Introduction**

The climate change issue has been one of the major threats to humans and our nature in the 21st century (Kupalova and Bazylevych, 2014). The increasing average global temperatures, the rise of sea level, the change of frequency, and the duration of extreme weather events lead to more weather-related hazards, for example, flooding, drought, storms, landslide, permafrost, and heat stress. These impacts do not only destroy our natural environment but also causing economic loss, changing human behaviors, and even threatening life.

Tourism is an important economic industry in the world. It generates over 10% of the global GDP which makes it becomes an indispensable industry to the world economy, especially there are some countries such as Bangladesh and India which are heavily dependent on tourism.

However, tourism activities are sensitive and vulnerable to weather and climate (Falk, 2011; Hewer, 2020). The weather elements, for instance, temperature, precipitation, wind speed, sunshine duration, and cloudiness, are one of the factors of tourists' destination choice, activity, and satisfaction (Falk, 2011; Dubois et al., 2016; Hewer, 2020). Other factors like the climate of a place and extreme weather events affect tourists' decision-making and thus lead to economic loss. Needless to say, under the global issue of climate change, the sensitivity and vulnerability of tourism and recreational activity to weather and climate change.

2. Literature review

2.1 Weather and climate

Weather is defined as the condition of the atmosphere at a destination where tourists experience or will experience over a short period (as cited in Dubois et al., 2006; Rada, 2010). Climate refers to the long-term, more than 30 years, as usual, weather pattern of a place (as cited in Dubois et al., 2006; Rada, 2010). However, many people are confused about the meaning of “weather” and “climate”. According to Dubois et al. (2016), tourists tend to mix up the meaning of “weather” and “climate”, although they look up the “weather” on the forecasts website and know the “climate” of a place by reading the tourist guide.

2.2 Climate Change

Climate change is a global environmental issue caused by human activities such as burning fossil fuel, cutting down forests excessively, using chemical fertilizers, and cattle ranching. Those human activities contributed to greenhouse gases emission. Greenhouse gases (GHGs) (i.e. carbon dioxide, nitrous oxide, methane, and other man-made greenhouse gases) increase. However, GHGs can stay in the atmosphere for a long time and can trap the heat in the atmosphere which causes the global temperature to rise (Adedeji et al., 2014). According to the Intergovernmental Panel on Climate Change (IPCC), the current greenhouse gas emissions level is probably to cause average global temperatures to increase by 0.2°C each decade.

Climate change leads to rising global temperature, melting of polar caps in Arctic and

Antarctic areas, expanding the desertification area, and increasing precipitation rate in some parts of the world especially Europe's winter period (Adedeji et al., 2014). Also, the frequency, intensity, and duration of natural disasters and extreme weather events increase under climate change. Natural consequences are the most direct impacts of Climate change and which lead to economic consequences and health issues.

For the economic consequences, the change in weather and climate pattern and the increases of extreme weather events affect global primary production which will further affect other economic activities. Droughts and floods lower farm yield and productivity. More people experience hunger. Labor productivity decreases. It is estimated that the economic impact of climate change increase by 20% of the global income at most (Adedeji et al., 2014). Therefore, the snowballing effect may exaggerate global economic loss.

For the health issues, human undergoes direct and indirect impacts on health due to the change in their conditions of life. Temperature-related illness, extreme weather-related, and air pollution-related health effects are the direct impacts if there is exposure to the weather extremes events (Adedeji et al., 2014). Less indirect health issues are water and foodborne diseases, vector-borne and rodent-borne diseases, famine or malnutrition, mental and infectious health issues that have a greater magnitude among direct health impacts (Adedeji et al., 2014).

2.3 Tourism

Tourism is people traveling to and staying in places that are not for work and residence, participating in various activities during their stay (as cited in Rada, 2010). According to

Rada (2010), individuals are intentionally engaging in traveling and recreational activities for personal satisfaction and happiness.

Tourism is a weather and climate-dependent industry. The weather and climate of a destination determine the services, the length, and types of recreational activities and facilities provided. Ski resorts are highly dependent on a stable snow condition, cloudiness, low annual temperature, and cold winter of a location (Falk, 2011). The weather and climate as a factor of tourists' destination decision making. A study showed that weather conditions are an important consideration when deciding the ideal destination (Dubois et al., 2016). Another study showed that climate is one of the most important attributes in destination choice (as cited in Bigano et al., 2005). Also, weather and climate affect the length of stay in a place. Dubois et al. (2016) found that poor and extreme weather conditions would spoil most of the trip while rainfall is the most detrimental factor followed by cold weather, windy and cloudy conditions. Extreme weather events such as heatwaves and abnormal periods of rain may lead to trip cancelation and change of alternative activities (Dubois et al., 2016). Therefore, the development of the tourism industry is highly dependent on weather and climate.

However, under the issue of climate change, the tourism industry is facing more direct and indirect impacts of weather and climate. Firstly, tourists are facing safety problems. The rising temperature in Australia may lead to thermal injuries of tourists range from mild heat exhaustion to severe cases, death (Rada, 2010). Tourists tend to choose cooler regions in higher latitudes and altitudes. Thus, cool destinations will be more attractive than warm destinations. Secondly, the demand and supply of landscape tourism decrease. According to Rada (2010), it estimated that one-fifth of the temperate forest disappears due to the

warming issue. Biodiversity and the number of hiking trails decrease with reducing the attractiveness to visitors. Thirdly, shorten or lengthen the length of recreation season limits the activity choices for tourists. Snow-reliable recreational activities such as skiing and snowmobiling are facing shorter recreation seasons while golf is facing an extension of season for six weeks (as cited in Rada, 2010). Some of the recreational activities are becoming more and more vulnerable to climate change. Therefore, climate change affects subtropical and tropical areas negatively while the temperate areas may have an increase in tourist flow.

2.4 Visual Methodologies

Visual methodologies are widely known and frequently used in qualitative research to understand participants' interpret of images such as photography, video, and film (Glaw et al., 2017). Autophotography and photo-elicitation are two effective visual methodologies that are usually applied in qualitative health research, anthropology, and sociology for a long time ago (Glaw et al., 2017; Lord, 2012; Crath et al., 2018; Padgett et al, 2013; Matteucci, 2013). For autophotography, participants require to take photos or draw something themselves for further photo analysis which captures more detail thoughts and allowing nonverbal expression. For photo-elicitation, two approaches were used to stimulate participants' verbal elicitation on images i.e. respondent-controlled visual stimuli and researcher-controlled visual stimuli (Glaw et al., 2017; Padgett et al, 2013; Matteucci, 2013).

Recently, they have become more important and popular in tourism research even though the use of visual methods is still marginal (as cited in Matteucci, 2013; Espinosa et al.,

2019). Espinosa et al. (2019) found that the use of photo-elicitation in tourism mainly focuses on two directions i.e. studying different travel experiences (Matteucci, 2013) and examining tourists' and residents' perceptions (Janusz et al., 2017; Hillman et al., 2018; Hindley & Font, 2018). Most of the studies focus on tourism development or residents' perceptions in a single destination or location (Janusz et al., 2017; Hillman et al., 2018) while Hindley and Font (2018) decided to investigate tourists' perception in Arctic and Venice.

However, the connection or interaction between locations is weak, no matter the number of investigated destinations. A researcher-controlled visual stimulus is a more common approach in tourism study comparing to the respondent-controlled visual stimuli approach. The rationale is that (a) pool of images available online contribute to a less expensive and time-consuming visual method (Matteucci, 2013; Espinosa et al., 2019); (b) selected images are suitable for the research and are in good-quality (as cited in Espinosa et al., 2019).

A five-step sequential approach (i.e. sourcing images, selecting specific photos, preparing the interview arrangement, conducting the interviews, and analyzing data) is suggested by Dempsey and Tucker for the photo-elicitation interview (as cited in Matteucci, 2013). As mentioned by Matteucci (2013), the internet visual materials would be the main source and added with scanned materials forming the images pool including positive, neutral, and negative aspects. For selecting specific images, Matteucci (2013) avoided selecting too many images as not to distract the participants while the selected images have to carry various perspectives and interpretations. For the interview schedule, it usually includes the introduction part, interview guide part, warm-up questions, and the photo-elicitation part

(Matteucci, 2013; Janusz et al., 2017). Some studies decided to examine the pre, during, and post-visit of a destination (Hindley and Font, 2018). The same set of images presented to 3 groups of respondents (i.e. pre-visit, during-visit, and post-visit) to generate opinions and perceptions. And for conducting the interview, most interviews took place in public places or the specific destination or attraction for conducting a face-to-face interview which can present the images to respondents (Matteucci, 2013; Janusz et al., 2017; Hillman et al., 2018; Hindley and Font, 2018). Lastly, for the data analysis, the recorded interviews were transcribed and thematically analyzed by using open coding or a pre-established coding scheme (Matteucci, 2013; Janusz et al., 2017; Hillman et al., 2018).

3. **Research gap**

Several studies are focusing on different aspects of the relationship between climate change and tourism (Bigano et al., 2005). As summarized by Bigano et al (2005), five types of studies are growing: analyzing tourists' behavior as a function of weather and climate, studying the changes of tourist destinations under climate change, surveying the tourists' preference on weather condition during traveling, examining the impacts of climate change on tourist movement, and investigating the economic implications on tourism.

Despite the increasing number of studies on the relationship between climate change and tourism, there are still insufficient studies to cover all the climatic zones. Most of the researches are mainly focusing on North America and Europe where cover the temperate zone the most (Rada, 2010; Hewer, 2020; Dubris et al, 2016; Falk, 2011; Hamilton and Tol, 2007). Tropical and subtropical destinations such as Hong Kong and South East Asia countries are ignored.

Also, the studies are incomprehensive. They only focus on the sensitivity and vulnerability of tourism to climate change in a single destination or area. The interaction and relationship between multiple locations need further investigation.

And for the tourism and recreational sectors, weather-related outdoor activities (i.e. hiking, boat touring, skiing) are always the research focus but ignore other common tourist activities such as visiting zoo, museum, and amusement park.

Although these researches tried to study tourists with different backgrounds, most of the participants were retired and from developed countries (Espinosa et al., 2019; Janusz et al., 2017; Hindley and Font, 2018). Therefore, insights from other age groups and developing

countries are needed.

For the research method design, only a few studies added the idea of pre and post-visit into the photo-elicitation interview (Hindley and Font, 2018); while most of the studies put the photo-elicitation part under the spotlight (Espinosa et al., 2019; Janusz et al., 2017; Matteucci, 2013). However, the pre and post-visit interviewees are not the same groups of people leads to a lack of consistency.

This study concentrated on the sensitivity and vulnerability of non-weather-related activities in different climatic zones. Through conducting a qualitative interview, find out the sensitivity and vulnerability of Hong Kong young tourists towards different climatic zones. Next, it surveys tourists' adaptation behaviors to climate change. The preparation and adjustment for their travel plan shape the most adaptable travel activities under climate change.

Two research questions are inscribed:

1. How do Hong Kong tourists' sensitivity and vulnerability change under the influence of climate change in the case of visiting amusement parks?
2. How do tourists adjust their travel plans (e.g. destination, duration, activities) under the issue of climate change?

It expects that Hong Kong tourists are more vulnerable to subtropical amusement parks under climate change since the study of Hamilton and Tol (2007) showed that tourists tend to visit a cooler destination. Besides, it also expects that tourists will shorten outdoor activities duration and spend more time on indoor activities or entertainment.

4. **Methodology**

4.1 Qualitative Research

In this qualitative and inductive study, we explored Hong Kong's young-adult tourists' experiences and opinions by using semi-structured interviews with photo-elicitation interviews (researcher-controlled images) and analyzed with the thematic method. It has been found useful in eliciting deeper parts of consciousness than words for further discussion (Glaw et al., 2017).

4.2 Participants

The participants of this study are 11 undergraduate students from Hong Kong universities with different academic disciplines backgrounds. It is to ensure the research's generalizability and minimize bias. Also, due to limited research time and resources, the study context can only focus on Hong Kong.

Interview participants were selected by purposive sampling to meet the inclusion criteria: being Hong Kong permanent resident, on-studying in undergraduate degree provided by ten local universities, with traveling experience, and who were willing to take their time and share their experiences or thoughts in the interview.

Table 1 Background of 11 college students

Participants (pseudonyms)	Sex	University	Academic disciplines	Family income level	Purpose of Traveling	Travel frequency (year)	Travel destinations
Angel	F	HSUHK	Social media	Middle	Have a great time with family, try local food	1	Japan, South Korea, Taiwan
Cherry	F	HKBU	Human resources	Low	Experience the culture, special natural scenic and weather event, broaden horizon	2-3	China, Japan, South Korea, Europe
Robert	M	EdUHK	Geography	Middle	Relaxation, broaden	2	Australia, UK,

					horizon, experience new culture and food		Scandinavian countries, Japan, Taiwan
Jami	F	HKU	Art	Low	Experience new things, food, relaxation	1	UK, Thailand, Japan, Singapore
Emily	F	LU	Visual Arts	High	Experience new things	1	China, Taiwan, UK, Europe
Alexander	M	PolyU	Chinese Language	Low	Sightseeing, handout with friends and experience local culture	1-2	China, Egypt, South Korea, Thailand, Singapore, Taiwan
Charlotte	F	HKU	English Language	High	Have fun; experience	1-2	Japan, Australia,

					local food and try new things		South Korea, Taiwan, England, Germany, France, Italy, Sweden
Bethany	F	CityU	Engineering	middle	Handout with friends and family	2	South Asian Countries, Europe, Middle East
James	M	EdUHK	Science	low	Broaden horizon, relaxation, have a great time with friends and family	1-2	South Korea, China, Taiwan, Thailand, Europe and Australia
Samantha	F	CU	Translate	high	Having a great time with friends	2-3	UK, USA, Europe, Egypt,

					and family, experience local culture and food		Vietnam, South Asian countries
David	M	CityU	Marketing	middle	Broaden horizon, know more about the place	2-3	Japan, UK, Canada, Taiwan

4.3 Data collection

Data collection was performed between January and February 2021. A semi-structured interview was conducted for this research. Due to the COVID-19 pandemic, the semi-structured interviews were undertaken through video conferencing or web conferencing instruments i.e. Zoom and Skype. It consisted of open-ended questions and predetermined questions. Each interview usually began with warm-up questions about opinions on climate change, travel experience, and habits. For example, ‘What do you think about traveling?’ and ‘How does climate change affect your satisfaction of traveling?’. In the second and third parts of the interviews, the photo-elicitation method was applied to generate a deeper discussion.

The interviewer showed two sets of photos and videos to participants through the screen

sharing function of Zoom or Skype. The form and content of selected visual images were under control that they should be read externally or internally which including positive, neutral, and negative aspects in the pool of images (Epstein et al., 2006). Also, there are in total 15 images that avoiding too many images and lead to distraction.

Questions were asked to stimulate conversation on each image in part two, for instance, ‘How do you feel about this place or activity?’ and ‘Tell me your concern if you are going to spend your vacation there’, follow-up questions were asked dependent on response. For the third part, another set of photos or videos about activities under the threat of extreme weather events (e.g. heat waves, cold waves, tropical cyclones, tornados, hurricane, heavy snowfall, drought, and flooding) were presented to interviewers. The interviewer asked questions to collect feedbacks for each image, for example, ‘After watching these photos or videos, how do you feel now?’ and ‘How would you adjust your travel plan?’. There were follow-up questions according to participants’ responses. More detailed interview questions can be seen in the appendix.

Table 2 Content of images and rationale for selecting these images

Categories	Rationale
<p>Tourist activities in good condition</p> <p>3 photos of amusement parks (Hong Kong Disneyland, Gröna Lund Tivoli in Sweden, Lotte World in South Korea)</p> <p>1 photo of museum</p> <p>1 photo of beach</p> <p>1 photo of shopping mall</p> <p>1 photo of Ski resort</p>	<p>Images show different indoor and outdoor tourist activities. These photographs investigate tourists' experiences and perceptions of different activities.</p> <p>Activities preference can also be investigated.</p> <p>3 images show amusement parks in different climatic zones (i.e. subtropical and temperate zone). These photographs examine tourist's choices of amusement parks base on the characteristic of climatic locations and the indoor/outdoor facilities in the park.</p>
<p>Extreme weather events</p> <p>1 video and 1 photo of Hong Kong Disneyland under typhoon and rainstorm</p> <p>1 video and 2 photos of amusement park under heavy snow</p> <p>2 photos of amusement park under hailing</p> <p>1 photos of Disneyland under Very Hot Weather Warning</p>	<p>Videos and photographs show the condition under or after extreme weather events. These images help to understand tourist's vulnerability under different extreme weather events. Perception and travel plan changes are expected.</p>

4.4 Data analysis

This study draws on a thematic method to analyze the data. Anonymized interview transcripts were used to protect interviewees' privacy. The thematic analysis involved coding all the data and identifying the main themes and patterns of those responses. The coding approach is based on Burnard's analytical stages (1991). It begins with organizing the data. Then, it distinguishes distinct concepts and themes for categorizing. Next, it generates various codes across the data, sorting codes into potential themes. By examining each theme, we can understand interviewers' perceptions and behaviors systematically. A list of themes was categorized as: Adaptation

- a. Adjustment
- b. Nature of extreme weather event
- c. Impacts of weather event
- d. Personal perception
- e. Indoor-outdoor facilities
- f. Tourists concerns

5. **Findings**

After interviewing 11 college students from ten Hong Kong universities, here are the findings responding to research questions in relation to factors affecting tourist's satisfaction, perceptions to climate change issue, perceptions to tourist activities, change of sensitivity and vulnerability on amusement park, vulnerability to extreme weather events, and behaviors under extreme weather events.

5.1 Factors affecting tourist's satisfaction

The interview data shows that weather is the most important factor affecting tourists' satisfaction in a trip. 91% of the participants mentioned weather factors when they were sharing a fruitful or disappointing experience in traveling.

"I like the days in Cairns, Australia. The weather is so nice since there was the falling season in northern Australia. Blue sky and mild temperature... When it comes to evening, the sky turned purple. That's amazing and there were bats flying in the sky. The sunset was amazing too. That's really comfortable." (Robert, EdUHK, Geography)

"...the weather there was so hot that the heat waves last for the whole trip...we almost got a heat stroke at the day visiting the Blue Mountain. I like the sunshine but not the heatwave and extremely high temperature." (Robert, EdUHK, Geography)

Also, more than half of them think the weather is the most important factor comparing to other factors they mentioned, for example, human factors, security, special experiences, and the environment of the destination. Participants explained that weather is uncertain and influential. Human factors can be controlled or prevented during the trip.

“Weather is the most important factor since it will affect my feeling and the experience. Also, it will affect the road traffic and may lead to cancellation or delay of activity.”

(Charlotte, HKU, English Language)

However, a poor or unexpected weather condition will lead to plan adjustment or even safety issues while a good weather condition will create memorable experiences.

Therefore, all of them will check the weather forecast for Hong Kong and the destination when they are planning for the trip. Their itinerary and personal luggage are depending on the weather condition.

5.2 Perceptions to climate change issue

All the participants showed that they have sufficient knowledge and attention to climate change issues during the interview. Overall, Hong Kong's young-adult has a negative perception of climate change. All the participants expressed negative feelings when they were asked about the perception of climate change. They stated that it is an everyday issue that affects their daily life and their travel experience. Impacts of climate change on daily life and tourism were emphasized such as economic loss, delay or cancellation of transport, disappearing travel destinations, and changing travel activities.

“...decrease my satisfaction. Extreme weather events may lead to the cancelation of flights and travel tours. The outdoor area and traffic system are poorly affected. And then will lengthen the commuting time. ... due to typhoon [event] in Hong Kong, [our] trip to Japan had to be canceled. And that leads to economic loss as we have already booked the hotel and paid for package tour.” (Jami, HKU, Art)

Under the threat of climate change, 91% of participants said that they had or will make various adjustments to tourist activities and planning. However, this adaptation behavior and repeated adjustment on travel plans result in decreasing willingness to travel. Therefore, Hong Kong young adults are vulnerable and sensitive to climate change issues, especially to the impacts.

5.3 Perceptions on tourist activities

Five types of tourist activities were under investigation in the 2nd part of the interview. With the photo-elicitation interview, Hong Kong young tourists show their perceptions and concerns about those activities. Some experiences were shared to support their opinions.

For the amusement park, all the participants showed a positive feeling towards Hong Kong Disneyland, Grona Lund Tivoli, and Lotte World. When they were asked to talk about the images and express their opinion on them, they always mentioned the color of the sky, weather conditions, and the facilities shown in the image. However, their concerns about a different amusement park are slightly different.

“I would only go to the theme park unless the weather is fine. Rainy days will be so troublesome and I cannot play outdoor facilities. Especially for [Grona Lund Tivoli] park are filled with outdoor facilities. I haven’t been to an amusement park which is full of outdoor games.” (Cherry, HKBU, Human resources)

Overall, Hong Kong young tourists concern about the cost, attractiveness of the facilities, and the crowdedness when they are planning to visit the three amusement parks shown.

Indeed, weather and temperature are one of the main concerns when they are planning to

visit Hong Kong Disneyland and Girona Tivoli, especially for those outdoor facilities enthusiasts. They explained that from their personal experience and the images shown, there are only a few or even absent indoor facilities which provide shelter and cover when there is a poor weather condition. For Lotte World, participants pointed out that there are huge buildings that may provide indoor facilities or even indoor amusement rides. Therefore, visiting amusement parks is subjected to weather conditions. The weighting of indoor and outdoor facilities in the park would be a concern when choosing the ideal amusement park.

For indoor activities, Hong Kong young tourists expressed different feelings and perceptions on visiting museums and shopping. Over 60% of the participants felt positive or neutral about visiting museums whereas about 70% of them felt negative about shopping. They expected to experience local culture and relate to the history of a place during travel so that visiting museums would be a meaningful and valuable experience than going shopping. Also, Hong Kong young tourists are not expecting similar activities which they can do in Hong Kong. They related the modern shopping centers shown to Festival Walk in Hong Kong which is also well-designed and with various luxury brands.

“...the mall is very expensive and time-consuming...” (Robert, EdUHK, Geography)

“It is not as valuable as other tourist spots and activities... since that is not a local market and they are similar to Hong Kong shopping mall. So that’s meaningless to visit there. I would spend my time in the shopping mall only when the weather is not available for outdoor activities like extreme hot day and heavy rain and snow or there is no schedule planned for that day.” (Emily, LU, Visual Arts)

And over half of them concerned about the cost and spending for shopping since they are full-time students and most of them are from a middle or lower-income family that they cannot afford the spending. Overall, Hong Kong young tourists are less preferring indoor activities which they would like to make it as an alternative plan for poor weather condition.

For weather-related activities, going to the beach and skiing are more popular among other tourist activities. Hong Kong young adults are interested in doing outdoor activities which they can enjoy the nice weather and view. Although these activities are vulnerable under poor weather conditions, they look forward to trying new experiences and enjoying the good quality of the beach. Participants commented that it is hard to experience skiing in the subtropical area and the beach quality of Hong Kong is poor which is unattractive at all.

5.4 Change of sensitivity on visiting amusement parks

The sensitivity and vulnerability of Hong Kong young tourists on visiting amusement parts increase when there is the threat of climate change. They are sensitive to weather conditions when visiting amusement parks in the good condition. And they are more sensitive to extreme weather events. Safety issue becomes their main concern including personal health and safety of facilities among all the participants while 80% of them thought the nature of extreme weather event (e.g. frequency, duration, and intensity) also affecting their behavior and willingness to visit the park.

“I would check if the park is still opening first. If it is still opening, I will continue my schedule but spending more than in the indoor area rather than the outdoor area since the tress may collapse afterward.” (Bethany, CityU, Engineering)

Participants are more vulnerable to extreme weather events which are rare, with long duration, and high intensity. The rare events are hard to predict and prepare for it.

Tourists cannot make instant adaptation and adjustments for their trip. The long duration of events may lead to higher exposure and greater damages. And for a high-intensity event, undoubtedly, destructive damages were made which is hard and takes a long time to recover.

Therefore, there is generally increasing sensitivity and vulnerability under climate change but tourists still have various degrees of vulnerability towards different nature of extreme weather events.

5.5 Vulnerability to extreme weather events

To Hong Kong young tourists, visiting amusement parks is a weather-related activity since over 90% of them spend most of their time on amusement rides (mostly outdoor) and taking photos. Under this condition, visiting amusement parks is vulnerable and subjected to extreme weather events.

The most influential extreme weather event to Hong Kong young tourists is a typhoon, followed by hailing and snowstorm. There are 64% of the participants considered that typhoon is the most influential extreme weather event while 36% and 27% of them thought hail and snowstorms are the most influential event respectively.

On the other hand, all the participants considered rainstorms and heatwaves are relatively less influential or even not an influential extreme weather event when comparing with typhoons, hail, and snowstorms.

“I think I am more [getting] used to the very hot day and it is not that fatal compare with others” (Samantha, CU, Translate)

“Very hot day is very common in Hong Kong so it is not influential at all.” (David, CityU, Marketing)

When Hong Kong young tourists are going to an amusement park that is undergoing or will be undergoing or were undergone an extreme weather event, they concern about the impacts of the weather event such as fatality, severity, and damages caused. Also, they will consider their personal experience and knowledge of the events. Measurements to prevent or reduce damages are one of the concerns too.

5.6 Behaviors under extreme weather events

Under the threat of extreme weather events, participants take different actions including adjustment on planning and adaptation according to each weather event when they visit an amusement park.

For typhoons, all the participants prefer to make adjustments to the origin plan. They would like to postpone the visit and change it to other indoor activities such as going to a café or visiting a museum since there are safety issues on individuals and facilities.

Although there are indoor facilities in amusement parks providing shelter in poor weather conditions, Hong Kong young tourists are more into outdoor amusement rides and prefer to take photos outdoor. Therefore, changing to other indoor alternative tourist activities

can prevent the risk of getting an injury and save the costly ticket for other meaningful activity.

“I do sure not visit it since the facilities may be affected and not safe anymore until the engineer checked or maintained it. If I were there, I will leave immediately, and change to indoor activities like shopping, visiting a museum, or going to a café.” (James, EdUHK, Science)

For snowstorms, more than half of the participants would like to make adjustments to visiting amusement parks. When they were asked to express their opinion on snowstorm photos and video, they were concerned about the temperature and safety issues, especially on transportation. They prefer to shorten the time spend on an outdoor amusement ride and change to alternative indoor activities such as staying in the shopping mall. Also, they may prefer underground transportation to replace road transport since the commuting time may be lengthened. However, compare to typhoons, Hong Kong young tourists though that snowing is rare and attractive that they may spend more time on photo taking. Participants explained that it is rare to experience snowing in their daily life which is hard for them to imagine how terrible is the snowstorm even with the provided images.

“...I will try to walk slowly to prevent falling from the slippery floor.” (Cherry, HKBU, Human resources)

“It is cold and inconvenient to visit the amusement park. I may shorten the time spend in the park or even change to other outdoor activities.” (Alexander, PolyU, Chinese Language)

For hail, there are 72% of the participants would adjust to the visit rather than adapt to the extreme weather event. All the participants decided to find cover and shelter in the park immediately while over 70% of them decided to shorten the time spent in the park and change to other indoor activities after hailing. They emphasized that hail is fatal and causing huge damage to the facilities although it has to depends on the size of hail and its frequency. Since no one has experienced hailing before, they afraid there will be hailing again in a short period which causing further damages.

“Hail is rare in tropical areas but it is very dangerous and fatal. If I were in the park, I will find shelter immediately.” (Angel, HSUHK, Social media)

“I will change my schedule for sure since it can kill people and damage outdoor facilities or buildings. I will stay in the hotel or just continue the indoor activity schedule.” (Emily, LU, Visual Arts)

For rainstorms, all the participants adapted to the weather events and continued their visit to the amusement park. They prefer staying in the indoor area such as shops and restaurants in the park. From their personal experience, there are themes in shops and restaurants which make them look pretty and attractive too. Also, preparation was made before visiting the par such as bring a raincoat and umbrella. Then, they can ride on the outdoor facilities which are still in service. Safety issues would not be a big concern under rainstorms but Hong Kong young tourists considered the convenience and satisfaction more under rainstorms.

“I would like to stay in this beautiful land to enjoy the atmosphere there. I may go to the café or browse around the shops there.” (Robert, EdUHK, Geography)

Lastly, all the participants adapted to the heatwave and suggested various adaptation measures to cope with a weather event. Participants explained that heatwaves are common in Hong Kong that they are adapted to the high temperature and sunny weather. If there is a heatwave affecting the amusement park, they would stick to their origin plan but may make various adaptation measures. They suggested that shorten time spend in outdoor facilities, bringing enough water, a mini-fan, towel, umbrella, and sunglasses, putting on sun cream, and having ice cream and iced drinks in the park. Also, they explained that a heatwave is a long period of events that is hard to avoid in daily life not to mentioned during vacation. Although there are bad experiences of experiencing heatstroke in the amusement park, Hong Kong young tourists get used to heatwaves and do sufficient preparation to minimize impacts such as heat stroke and sunburn.

“I won’t shorten my schedule since the ticket is so costly. There is shelter provided so I will stick to my original plan.... I can bear the heat. Even if I change the plan, the possibility of having a very hot day is high in a short period. The adjustment seems useless.” (James, EdUHK, Science)

Overall, Hong Kong young tourists make an adjustment on planning when they are facing more influential weather events i.e. typhoons, snowstorms, and hail while they adapt to less influential events i.e. rainstorms and heatwaves. Their response and action are related to their vulnerability and sensibility to each weather event.

6. Future implications

This study investigated the change of sensitivity and vulnerability of Hong Kong young tourists to the tropical, subtropical, and temperate area under climate change. With the findings mentioned above, this section is to suggest some theoretical and practical implications.

Theoretically, although there is a mix of indoor and outdoor facilities in the amusement park, tourists' response to visiting amusement parks is more similar to other weather-related activities. Tourists prefer taking photos outdoor and ride on amusement rides which are usually found in outdoor open spaces. Therefore, tourists are sensible and vulnerable to weather conditions when visiting the amusement park.

Next, with the influence of climate change, Hong Kong young tourists have increased sensitivity and vulnerability on visiting the amusement park. Safety issues are highly concerned due to severe impacts and destruction caused by extreme weather events. In specific, Hong Kong young tourists are more vulnerable in traveling to tropical and subtropical destinations since they considered typhoons as the most influential extreme weather event when visiting the amusement park.

Moreover, tourists' sensitivity and vulnerability are determined by their personal experience and knowledge, impacts, and nature of weather events. These factors affect tourists' behaviors under extreme weather conditions. They tended to adopt the less influential event that makes minor changes to the plan and do preparation to cope with the event. However, for those more influential events, since it is hard to avoid damages, tourists change to alternative indoor activities and postpone their visit to an amusement park.

For the practical implications, tourism management can be improved and strengthened to provide a safe and secure travel experience. Base on the investigation of tourists' adaptation and sensitivity, Hong Kong young tourists are amusement rides enthusiasts but at the same time vulnerable to extreme weather events.

First, the park can provide more indoor facilities and shelter for tourists. Lotte World in Korea is a good example that there is a balance of indoor and outdoor facilities. Some amusement rides are even put in the indoor area. Also, participants suggested that all the buildings or indoor facilities can be connected by bridges to improve the convenience of experiencing different facilities.

Second, the park can provide instant facility checking and maintenance. Hong Kong tourists concern the safety issue the most under the threat of climate change. The maintenance is not only providing a sense of safety for the visitor but also preventing any accidents leading to image damage of the park. Therefore, the checking and maintenance works are important, especially after destructive extreme weather events.

Third, the park can provide weather and health-related facilities and services. Although Hong Kong young tourists tried to adapt to less influential extreme weather events such as rainstorms and heatwaves, there is a need to provide better facilities and services to improve their satisfaction of visiting the amusement park. For example, mist coolers can be provided to cope with heatwaves. Weather-related friendly reminders are also helpful to prevent health issues.

Furthermore, other tourism-related industries can be benefited from this research to provide quality services under climate change issues. For example, the insurance company can optimize their travel insurance plan by covering damages and provide

comprehensive services under climate change.

7. **Limitation**

Although this study tried to cover the research gaps of previous studies and used a fresh methodology to explore youngster's experiences and opinions on climatic change and tourism, some limitations should be considered and look for further improvement.

First, the sample size (N=11) is small which cannot represent the actual opinions and perceptions of Hong Kong young adults. Also, all the participants were recruited from 10 Hong Kong Universities (i.e. publicly-funded local degree-awarding institutions) and ignoring youngsters from post-secondary institutions. With different academic backgrounds and experiences, it may lead to different understanding and interpretation of climate change and also affect their travel behavior.

Moreover, for the photo-elicitation part, researcher-provided images may limit the imagination and expression of participants. Some of the participants needed to know the background information of those selected images before expressing their opinion which leads to research inconsistency. Also, since participants are not familiar with the images provided, they request extra time to study and understand the images which lengthen the interviewing time and cause fatigue.

Besides, only 5 extreme weather events were covered in the investigation which cannot show an all-inclusive result representing the change of sensitivity and vulnerability. It would be better if other possible extreme weather events in different climatic zones were involved in the investigation.

8. Conclusion

In conclusion, the study focuses on the Hong Kong young tourists' sensitivity and vulnerability of visiting amusement parks in different climate zones. It provides a more comprehensive overview of how tourists respond to different recreational activities include indoor and outdoor activities under climate change. Also, the study covers the gap that the tourists' vulnerabilities toward the subtropical area and temperate area. Findings in the study suggested that Hong Kong young tourists are more sensible and vulnerable in visiting amusement parks under climate change issues. They are more vulnerable to rare, long-duration, and intensive extreme events. They tended to make adjustments and change the visit to indoor activity when they face influential weather events while they can adapt to less influential weather events and make preparation for it. Hopefully, this study can help to develop a modern city in a resistant way, especially for those subtropical countries. Policies can be modified base on the result and the practical implications to boost the tourism economy.

References

- Bazylevych, V. & Kupalova, G. (2014). CLIMATE CHANGE: THE MAJOR THREAT OF THE 21ST CENTURY. *Visnyk Kyïvs'koho Natsional'noho Universytetu Imeni Tarasa Shevchenka. Ekonomika*, 6(159), 6-11.
- Bigano, A., Gorla, A., & Hamilton, J. (2005). The effect of climate change and extreme weather events on tourism. *The Economics of Tourism and Sustainable Development*. doi: 10.4337/9781845426781.00010
- Crath, Rory, Gaubinger, Adam, & Rangel, Cristian. (2019). Studying the "sexuality-health-technology nexus": A new materialist visual methodology. *Culture, Health & Sexuality*, 21(11), 1290-1308.
- Dubois, G., Ceron, J.-P., Gössling, S., & Hall, C. M. (2016). Weather preferences of French tourists: lessons for climate change impact assessment. *Climatic Change*, 136(2), 339–351. doi: 10.1007/s10584-016-1620-6
- Epstein, I., Stevens, B., McKeever, P., & Baruchel, S. (2006). Photo elicitation interview (pei): Using photos to elicit children's perspectives. *International Journal of Qualitative Methods*, 5(3), 1-11. doi:10.1177/160940690600500301
- Espinosa Abascal, Trini, Fluker, Martin, & Jiang, Min. (2019). Image Use in Tourism Research Methodology. In *Qualitative Methods in Tourism Research* (pp. 248-278). Bristol, Blue Ridge Summit: Multilingual Matters.
- Falk, M. (2011). Impact of Long-Term Weather on Domestic and Foreign Winter Tourism Demand. *International Journal of Tourism Research*, 15(1), 1–17. doi: 10.1002/jtr.865

- Glaw, Xanthe, Inder, Kerry, Kable, Ashley, & Hazelton, Michael. (2017). Visual Methodologies in Qualitative Research. *International Journal of Qualitative Methods*, 16(1), 160940691774821.
- Hamilton, J.M, & Tol, R.S.J. (2007). The Impact of climate change on tourism and recreation. In *The Impact of climate change on tourism and recreation*. Cambridge University Press.
- Hewer, M. J. (2020). Determining the Effect of Extreme Weather Events on Human Participation in Recreation and Tourism: A Case Study of the Toronto Zoo. *Atmosphere*, 11(1), 99. doi: 10.3390/atmos11010099
- Hillman, Peita, Moyle, Brent D, & Weiler, Betty. (2018). Application of visual methods to perceptions of tourism development. *International Journal of Culture, Tourism and Hospitality Research*, 12(1), 124-129.
- Hindley, Ann, & Font, Xavier. (2018). Values and motivations in tourist perceptions of last-chance tourism. *Tourism and Hospitality Research*, 18(1), 3-14.
- Janusz, Katarzyna, Six, Sofie, & Vanneste, Dominique. (2017). Building tourism-resilient communities by incorporating residents' perceptions? A photo-elicitation study of tourism development in Bruges. *Journal of Tourism Futures*, 3(2), 127-143.
- Lord, K. (2012). Research methods in visual and comparative analysis: Transportation and sociability in Saint-Henri, Quebec and Lowell, Massachusetts, 1905–45. *Visual Communication*, 11(2), 131-161.
- Matteucci, X. (2013). Photo elicitation: Exploring tourist experiences with researcher-found images. *Tourism Management* (1982), 35, 190-197.


- Padgett, Deborah K, Smith, Bikki Tran, Derejko, Katie-Sue, Henwood, Benjamin F, & Tiderington, Emmy. (2013). A Picture Is Worth . . . ? Photo Elicitation Interviewing With Formerly Homeless Adults. *Qualitative Health Research*, 23(11), 1435-1444.
- Rada, P. (2010). *Impacts of climate change and variability on tourism in western Newfoundland*. Ottawa: Library and Archives Canada = Bibliothèque et Archives Canada.

Appendices




A. Interview questions and rationale

Sections	Rationale	Questions	Remark (images)
Warm-up	To analysis whether the differences in education background and family background would lead to different sensitivity and vulnerability under climate change.	1. Tell me something about yourself like your age, the university and program you are studying at, family income level.	
	To ensure the participant has travel experience	2. What do you think about traveling? (For sightseeing, handout with friends, try different cuisines...?) 3. How often do you travel and where have you been?	
	To understand their ideal trip To find out concerns of tourists	4. How did you plan your trip? (will you check the weather forecasting or base on historical record) 5. Base on your previous trips, what would you do or where would you go in your trip? Why?	
	To find out concerns of tourists To find out whether weather and climate would be an important factor in their trip	6. Can you share a fruitful or memorable trip or moment? Why is it enjoyable? 7. Can you share a disappointing trip? Why is it disappointing?	





		<p>8. Can you think of other factors which may increase or decrease your satisfaction towards your trip? (Is climate and weather an important factor in your trip?)</p> <p>9. Which factor would be the most important one? Why?</p>	
	<p>To find out their sensitivity and vulnerability to climate change</p> <p>To discover how does climate change affect their travel experience</p>	<p>10. What does climate change mean to you? (How does climate change affect you / your daily life?)</p> <p>11. How does climate change affect your satisfaction of traveling?</p>	
Photo-elicitation on nice images	<p>To examine the sensitivity and vulnerability of each activity without climate change influences</p> <p>To find out the normal travel plan of participants by examining their preference on indoor and outdoor activities without climate change influences</p>	<p>1. What do you see here? Please describe the image.</p> <p>2. How do you feel about this image? (Would you like to visit? Why?)</p> <p>3. If you are in this image, how do you feel?</p> <p>4. Tell me your concerns if you are going to spend your vacation there. (In what circumstances, will you spend your trip there?)</p> <p>5. Base on this image, would you like to share some travel experience with me?</p>	



		<p>(repeat for every image)</p> <p>6. Which activity do you prefer the most? (amusement park, museum, beach, snowing, shopping)</p>	  
--	--	---	---



			 
--	--	--	--



			
<p>Photo-elicitation: images with extreme weather events or images of post-extreme weather events</p>	<p>To examine the sensitivity and vulnerability to different extreme weather events</p> <p>To find out how do they adjust their travel plan under extreme weather events</p> <p>To show the change of sensitivity and vulnerability of Hong Kong tourists toward visiting amusement park.</p>	<ol style="list-style-type: none"> 1. What do you see here? Please describe the image. 2. How do you feel about this image? (Would you like to visit? Why?) 3. If you were in this image, how do you feel? 4. What's really happening here? 5. How does this relate to your lives and your vacation? 6. Why does this problem or situation exist? 7. How would you plan your trip if you are visiting there soon? Any adjustment on your original planning? 8. If you were in the photo or video, how would you plan your schedule? 9. Base on the image or video, would you like to share some travel experience 	 <p>[https://www.youtube.com/watch?v=ET8qRJ-2hqw Hong Kong Disney typhoon]</p>



with me?
(repeat for every image)



[https://youtu.be/Zvb_8omI_SA Korea heavy snow]



The Education University
of Hong Kong Library

For private study or research only.
Not for publication or further reproduction.





The Education University
of Hong Kong Library

For private study or research only.
Not for publication or further reproduction.

Appendices

B. Thematic categories from coding approach

Thematic categories	Example excerpts from transcripts
<p>Adaptation (128)</p> <ul style="list-style-type: none"> • Preparation • Activity • Duration • awareness 	<ul style="list-style-type: none"> • <i>It reminds me the experiences going to hong kong Disneyland. Almost every time that I spend my day in the theme park was extreme hot. And I used to hide in indoor activities afternoon. To find somewhere cooler.</i> • <i>I will put on sun cream.</i> • <i>I awon't take the risk to leave the park since I have already came in and I would like to stay in this beautiful land to enjoy the atmosphere there. I may go to the café or browse around the shops there...</i>
<p>Adjustment (125)</p> <ul style="list-style-type: none"> • Activity • Transportation 	<ul style="list-style-type: none"> • <i>If I were there, I will leave immediately and change to indoor activities like shopping mall, museum, cafe, etc.</i> • <i>I will reschedule it since it may cause danger.</i> • <i>If the park still open, I will focus on indoor facilities and shorten my time spend.</i>
<p>Nature of extreme weather event (19)</p> <ul style="list-style-type: none"> • Frequency • Duration • Intensity 	<ul style="list-style-type: none"> • <i>Heatwave is common in Hong Kong and the duration is long.</i> • <i>Hail is in a very short period of time while typhoon may last for 2 to 3 days.</i> • <i>There is magnitude for typhoon and snowing.</i> • <i>If the hail size is large that would be very dangerous.</i>
<p>Impacts of weather event (62)</p> <ul style="list-style-type: none"> • Transport • Economic loss 	<ul style="list-style-type: none"> • <i>traffic will be affected... longer commuting time.</i> • <i>...due to typhoon...cancel our trip to Japan and lead to economic loss</i> • <i>After spending a day under the sunshine, I got sunburned.</i>

<ul style="list-style-type: none"> • Health issue 	
<p>Personal perception (36)</p> <ul style="list-style-type: none"> • Feeling • Experience • Reflection 	<ul style="list-style-type: none"> • <i>I never experience that and quite unusual to me so not that vulnerable to hailing.</i> • <i>I think heavy snow and hailing are far away from my personal experience.</i> • <i>It reminds me the experiences going to Hong Kong Disneyland. And each time the weather is extreme hot and I need to find somewhere cooler and shelter in afternoon.</i>
<p>Indoor-outdoor facilities (18)</p> <ul style="list-style-type: none"> • Plan in the amusement park • Preference on activity • Weighting 	<ul style="list-style-type: none"> • <i>I would prefer the third amusement park since there are both indoor and outdoor facilities</i> • <i>...the second amusement park is filled with outdoor facilities...may get tired and too subject to weather condition</i> • <i>I will try both indoor and outdoor facilities so to I adjust to the weather.</i>
<p>Tourists' concerns (296)</p> <ul style="list-style-type: none"> • Cost • Convenience • Safety • Traffic • Crowdedness 	<ul style="list-style-type: none"> • <i>Temperature and weather would be my concern.</i> • <i>Money would be my big concern e.g. the ticket and price level in the park.</i> • <i>Weather would be the most important concern since there are mostly outdoor activities. The weather would ruin the mood and view. Outdoor facilities may be closed.</i> • <i>Typhoon is dangerous andavoid putting myself in danger.</i> • <i>Safety issue is the main concern since outdoor facilities may be damaged by hail.</i>

Appendices

C. Interview transcript (significant responses to each question)

[Part 1]

1. How did you plan your trip?

(Will you check the weather forecasting or base on historical record)

- ➔ Look up the guide book, do research online, take others to travel planning as a reference; sure I would check the weather forecasting to prepare my clothing and other necessity
 - ➔ I will buy the travel book and search for some valuable tourism spots. Usually, I will have my to-do or to-see list. Of course, I will check the temperature and upcoming weather to prepare clothing or an umbrella. And I will plan the schedule for every day based on the weather. I will also think of alternative places or activities if there is a need to change the venue.
 - ➔ I will plan my vacation on holiday. Or if my schedule is fixable, I will try to escape the very hot summer or the freezing winter. Like, go to Europe in summer and Australia in winter. I will base on the weather there to plan the schedule but at first, I will list out all the possible places to visit. And it has to depend on the opening time and weather, also the traffic.
 - ➔ I will do some research on the potential visiting places and different activities. Of course, I will check the weather to prepare my clothing and other necessities. Checking the historical record might not be a must since the weather uncertainty is more often these years, due to the climate change issue.
 - ➔ Usually I will browse online to find some famous spots in the destination, and maybe I will select travel recommendations. I will select 10 favorite places. Five of them will be added to the itinerary. I usually plan to go to a district on a certain day and visit the other district on the other day. I will check the weather forecast. Also, we will make a decision together. I may visit somewhere else due to the weather condition or the situation of Hong Kong. For example, Hong Kong is hot and I want to go to Australia because it may be winter. Also, I want to see some of the beautiful scenery in Hong Kong. Hong Kong won't fall into the snow, I will go to the place where the snow falls
2. Base on your previous trips, what would you do or where would you go on your trip? Why?
- ➔ go somewhere natural to see the view, museum, and tourist spot; coz there is some nice natural spot which I cannot found in Hong Kong or there are very famous, also the pollution problems at foreign places are less serious than Hong Kong
 - ➔ museum, join the local tour, walk around the city, going theme park, try something new i.e. surfing, skiing, skydive.

- ➔ some famous museum, exhibition, beach, tourist spot which can be in nature, theme park if the facilities attractive
- ➔ I like outdoor activities most. Like, take a boat on the famous river in Vietnam. Taking photos of local people and nature. Going somewhere historical and valuable places.
- ➔ shopping, to see the well-known local animals there, experience local culture like trying on the traditional clothing, try the local food

3. Can you share a fruitful or memorable trip or moment? Why is it enjoyable?

- ➔ The time in Iceland was incredible since that's my first time seeing snow and a whole white place. It was cold but we were well prepared. So that not a big deal.
- ➔ Having my first skydive experience. Amazing experience since the sky was so blue and I can see the view of the whole city. That's was so exciting and I feel like I am free and not being controlled.
- ➔ I like the days in Cairns, Australia. The weather is so nice there since that was the falling season in northern Australia. Blue sky and mild temperature. When it comes to evening, the sky turned purple. That's amazing and bats were flying in the sky. The sunset was amazing too. That's comfortable.
- ➔ I tried the local snack in Thailand. And I tried on their traditional customs. That was amazing and I am happy to have these experiences.
- ➔ There is a moment I remembered. When I been in Japan, I got a chance to put on their traditional clothes and celebrate their traditional festival. That was amazing since all the decorations are beautiful and full of their local culture.
- ➔ I trip to Taiwan. We have a stargazing activity. The weather is nice that no cloud and is clear to observe the stars.

4. Can you share a disappointing trip? Why is it disappointing?

- ➔ While I was in Australia, the weather there was so hot that the heat waves last for the whole trip. And we almost got a heat stroke on the day visiting the Blue Mountain. I like the sunshine but not the heatwave and extremely high temperature.
- ➔ Seeing the bleached coral in Australia. We joined the glass boat tour to see the coral. However, it doesn't fulfill my expectation. Almost all the coral are bleaching and in a grey color tone. That alert my climate change and human activities are destroying our valuable natural environment. All the beautiful scenery can be no longer displayed to us.
- ➔ the time in London is quite disappointing. London is a rainy city. I still remember it rained for our whole trip. And it was freezing there. We even canceled the tour which goes to the tourist spot outside London city. It's raining and the sky is grey. Not good for photo taking. So we stay at the Airbnb mostly.

- ➔ The trip I had been to Taiwan. And I experienced an earthquake. That was not a strong one since the epicenter is far away from Taiwan. But I felt stress and being worried about the aftershock for the whole trip.
- ➔ A disappointing trip would be the time in Canada. I was sick during the trip. And I cannot join my friends to explore the city and join the local tour. I could only take a rest at the hotel and bought medicine by myself. That was lonely and disappointing. And out of my expectation of the trip.
- ➔ The poor transportation disappoint my whole trip in Taiwan. Wasting our time.

5. Can you think of other factors which may increase or decrease your satisfaction with your trip?

(Is climate and weather an important factor in your trip?)

- ➔ transportation, I think driving by ourselves would make the trip more flexible; climate and weather are important since they will affect whether I can depart from the airport and start my journey.
- ➔ the security; I don't want to worry about my personal belongings and money during the trip. I mean I have to be alert and prevent being stolen; weather; since the weather condition will affect the transport and decreasing the satisfaction of some outdoor activities like sky diving.
- ➔ security of the city. If my belonging were stolen that would ruin my holiday mood
- ➔ weather nice weather would properly increase my satisfaction since I like taking photos, and nice weather allows me to enjoy more travel activity
- ➔ security. I know that some countries or areas have very poor security due to the social issues there. And many thieves target foreign visitors. If my belonging or my money were stolen on the trip that would ruin my holiday mood. Without money and my passport, I can do nothing. ; Weather would be one of the factors too. Raining or tropical cyclones would affect the schedule or even lead to cancel of the whole trip since the flight would be canceled.

6. Which factor would be the most important one? Why?

- ➔ weather, since it will affect my feeling and also the experience in the spot, also the weather will affect the road traffic and may lead to activity cancel or delay.
- ➔ I think the security would be the most important if my passport and money or credit card were stolen, that would ruin the whole trip.
- ➔ I think maybe the weather. Coz I cannot avoid bad weather but I can prevent being stolen.
- ➔ personal security would be the most important one since I don't want to get hurt during the trip. I would try to avoid dangerous activity and natural hazards. I think the

weather can be count as a natural hazard such as heavy snow, hurricane, and extreme temperature.

- ➔ weather would be the most important one since it is unpredictable even there is weather forecasting information but it is changeable at any time. And if there is bad weather in Hong Kong like typhoons, the whole trip needs to be canceled although the weather in the destination might be good.

7. What does climate change mean to you?

(How does climate change affect you / your daily life?)

- ➔ every day is affected by climate change since the weather is hotter and hotter every day. And there is hotter winter which is very horrible.
- ➔ Climate change is affecting our daily life. in Hong Kong, the temperature goes up every year and there is nearly no winter at all. The weather is so frustrating. It is hard for me to choose the right clothing.
- ➔ Climate change brings inconvenience. Days become hotter which makes me wanna escape from the hot tropical area to somewhere cooler. Also, the weather is so abnormal. It's hard to find the right clothes to wear. And extreme weather is frequently happening.
- ➔ Bring inconvenient to my daily life since the weather becomes abnormal and there are more extreme weather events that pose risk to our life and property
- ➔ Affecting us every day and becoming more serious. Winter is missing in Hong Kong and that was impossible in the past. The weather becomes abnormal and extreme. The very hot day records are breaking every year and with increasing temperature. And although the temperature in winter increases, the very cold day number increased too. We are hard to adapt to the changing weather and climate.

8. How does climate change affect your satisfaction of traveling?

- ➔ it may decrease my satisfaction of traveling since there will be lots of trouble and we tourists may in danger.
- ➔ for traveling, I think outdoor activities are affected by climate change the most since there will be more and more unusual weather events like more hurricanes and heatwaves. And global warming will shorten the skiing resort operating season. And transport will also be affected. Flight may be canceled or delayed due to extreme weather events.
- ➔ it may decrease the satisfaction. The weather becomes abnormal. When the weather becomes hotter, some outdoor activities may be shortened. Like outdoor skiing resort. And some extreme weather activities will lead to canceled of outdoor activities. So travel activities can only change from outdoor to indoor one if there is an extreme weather event. But sometimes, it will increase the satisfaction like when it is hotter,

people will suffer less from the cold area.

- ➔ I think mostly decreasing my satisfaction. As mentioned, extreme weather events will lead to cancel of the flight or the whole trip. Outdoor activities may close. And the affected traffic system will lengthen the commuting time. I remember that due to the typhoon in Hong Kong, we had to cancel our trip to Japan. And that's lead to economic loss coz we have already booked the hotel and paid for some tickets.
- ➔ Decrease my satisfaction. The extreme weather reduces my willingness to go outdoors. It brings inconvenience in traveling and affects the smoothness of the trip goes on.

[Part 2]

Hong Kong Disneyland

- ➔ There's a castle with maintenance, a colorful world and many people there. I feel happy and joyful. I would like to go since that's quite fancy. I would like to spend a whole day there if the weather is fine. I mean the sky is blue with no cloud and no rain. If some wind would be perfect. And I wanna take a lot of photos and play all the roller coaster and maybe buy some souvenirs. I would properly concern about the weather and the cost of the tickets. If it is a rainy day, I may choose another to visit. Since taking an umbrella is so annoying while having fun in the amusement park. First, the weather must be acceptable to me; second, I have enough money to visit there; third, if there are friends or family who would like to visit with me. I have joined the annual silver membership of Hong Kong Disneyland when I was a secondary student. I used to go there with my friend. And we have been to the park more than 20 times. Even though the weather is not good, we have still been there and stay for a while. But that's not for me now.
- ➔ The sky is very blue there. The weather seems nice and good for outdoor activities. And there are some shops along the side of the main street. The usage of an umbrella is unusual in this picture. Positive. And I would like to go since everything is colorful and bringing people happiness. That's a good place to release stress and be as a kid. And the weather is nice which is going to play some outdoor facilities and take photos there. The money would be my big concern e.g. the ticket and price level in the park. I may compare it to the cost of other travel activities. If the price is worthy, then I may go. Second, the weather. I would only go to the theme park unless the weather is fine. No rainy day since it will be so troublesome and I cannot play the outdoor facilities. That's a fun experience when I was young. It was hot that day. I played the outdoor facilities under the big shining sun at around lunch hour since the line is shorter at that time. And when I sat in the car, that was hurt... the seat is very hot like teppanyaki. After that, I know why people are not playing the outdoor facilities afternoon.

- ➔ Disneyland with nice weather. It's sunny and very colorful seems filled with joy. Positive. Joyful and musical. I would like to go there since that's away from the realistic. And I would like to spend a day experiencing different facilities and take photos. The weather would be one of the concerns since I play outdoor facilities mainly. So not too hot and rainy would be fine. Also, I will avoid going there in summer coz almost every day is a very hot day. It reminds me of the experiences of going to hong kong Disneyland. Almost every time that I spend my day in the theme park was extremely hot. And I used to hide in indoor activities afternoon. To find somewhere cooler.
- ➔ Nice weather with blue sky. Trees are planted along the road. Buildings or shops along the road. Very colorful and all the buildings are in American style. Balloons there. Joyful. I would like to be there since the weather is very good to take photos there. If I were there, I will take a lot of photos and try on the facilities there. like the roller coaster and some indoor facilities. Maybe about the day. If that was a special day like Christmas, valentine's day, etc. The weather would be a concern too but not a must since there are lots of indoor facilities and shelter. Not really since I seldom go to the theme park.
- ➔ The weather is very good. There are some greening along the street providing shelter. And the buildings along the road are short that will not block the view and sunlight. Positive. And I would like to go since everything is colorful and bringing people happiness. That's a good place to release stress. The building designs are very dreamy and American. The money would be my big concern e.g. the ticket and price level in the park. I may compare it to the cost of other travel activities. If the price is worthy, then I may go. Second, the weather. I would only go to the theme park unless the weather is fine. No rainy day since it will be so troublesome and I cannot play the outdoor facilities. Nope. I seldom go to the theme park. And only goes there if the weather is nice. Otherwise, it's wasting money.

Grona Lund Tivoli

- ➔ The sky is very beautiful. There are many roller coasters. Excited since lots of rollercoasters
- ➔ I would spend a whole day there and take some amazing scenic photos along the coast. I will afraid of the weather and avoid visit this place during the rainy season or winter since that would be so cold for playing the roller coaster. And I will plan it as the first day or second day of the trip then I am more energetic to spend my time there.
- ➔ That was in the evening and there was a romantic pinky sky. The view from the facilities would be good since there is a sea view. I think walking along the coast would be so chill and cool. The sea breeze can cool down the temperature and kept the heat in winter. Very excited and romantic. I would like to visit there. Enjoy the thrilling facilities and amazing sea view. I would spend most of my time on outdoor activities and enjoy the view. But it has to depend on the weather condition. The weather would be the first concern since from the image there are mostly outdoor activities and with a great sea view. So if there is a rainy or windy situation, outdoor facilities may not be in service. It reminded me of the experience in HK ocean park. After spending a day under the sun, I got sunburned. Even though some indoor facilities are providing strong air-conditioning.
- ➔ The sky is pretty. Pinky sky. And the amusement park is located near the coast. There are many outdoor facilities mainly roller coasters. Very exciting. So many roller coasters and towers. But a bit packed with the roller coaster. Windy since roller coasters are very fast. Feel cool due to the coastal environment. Weather should be a big concern. No rainy and very hot weather. Also if it is so cold, I may not go coz play the roller coaster would be much colder. And then the price. If it is too expensive, I would prefer to go somewhere cheaper and valuable. It looks like an ocean park. With similar outdoor facilities. And sea view. It would be burning since no cover or shelter at all.
- ➔ So many roller coasters. The sky is beautiful and romantic. That would be good to visit with my boyfriend. The location is quite good since with the sea view. Thrilled since the environment is so great and with a good atmosphere for sure. I will visit there. lighting up the facilities would be a good structure for taking photos. If I were there, I would ride on some roller coaster, sightseeing tower (if any), and enjoy my own time along the coast. The weather would be the most important concern since there are mostly outdoor activities. So if there is raining or foggy, outdoor facilities may not be in service and the view will be ruined. I don't know where it is but remind me of Disneyland in Florida, USA. That theme park is located near the coast too. But that one is unfortunate since there is always a hurricane visiting the part and brought a lot of damage.

Lotte World

- ➔ The park is in the middle of the lake. There may be some indoor activities. It seems in autumn that the trees are in red and orange. Fantasy and very joyful I would like to visit since the scenery there is good and there is a sightseeing train. Happy and would like to try outdoor and indoor activities. I will play outdoor facilities in the morning to enjoy the nice weather, and then spend my afternoon in indoor facilities. Weather; cost; and season. Same as previous.
- ➔ The park is near the city area. There is a castle and some buildings in the park. And there are some artificial fountains. Positive. But I may easily get lost. I will try on the sightseeing tower and train. If the weather is fine, I will try more outdoor facilities and take photos there. And I will avoid going out at around 1 pm. The cost would be a concern; whether it is a crowd or not; weather might not be a concern since there are enough indoor facilities that can provide shelter and cover.
- ➔ Autumn. There are some artificial fountains. That's attractive. Good for photo taking. I guess there are some indoor facilities or shops in the buildings and castle. Positive. Spacious. But it seems close to the city which makes me less enjoy in the park. I will try the outdoor facilities if the weather is fine. If it is hot, I will stay indoors. The price. If it is too costly, I will not visit there. Also, see whether I have enough time. It seems to need to spend a whole day discovering the theme park.
- ➔ This park is close to the city area. I can see some tall buildings behind the park. The park may be located near a river or in a lake. That's beautiful. I think I would go there with friends or family. And if I were there, I would walk around the park and watch the artificial fountains show if any. I will ride on a roller coaster and indoor facilities. I guess there must be various indoor facilities since the buildings are tall and big. The cost would be a concern; whether it is a crowd or not; weather might not be a concern since there are enough indoor facilities that can provide shelter and cover.
- ➔ The park is near the city area. There is a castle and some buildings in the park. And there are some artificial fountains. Is it in autumn since the trees are orange and brown? It's a more realistic comparison with the 1st park. Beautiful and it is related to Korean drama. I would like to go since it looks big and accessibility is the high cause is located near to the city. I will try on the sightseeing tower and train. If the weather is fine, I will try more outdoor facilities and take photos there. I may stay indoors or in the buildings and castle afternoon.

Museum

- ➔ Art museum. Very gorgeous, and with natural light. Feel like in the castle and full of history and art atmosphere. Surely visit there coz I love art. Spend 3 to 5 hours there. I remember I spent more than 5 hours in the British Museum. And I would look around and try to see every collection showed. The schedule whether we are visiting another spot around the area; free or not; the opening hours; any special collection is shown; the weather would not be a big problem since it is indoor. That's about the British Museum. That's a rainy day and cold since it was winter in London. But it didn't stop me from visiting there and I lined up for 30 min and stay in the museum for 5 to 6 hours.
- ➔ Castle or art museum. There are big paintings and some sculptures. Neutral. It is solemn. High-class activities. It depends on whether I have sufficient knowledge or background information on these art pieces. I would like to look around but not come for a purpose. I would concern about the location. That would be good if it is near to other tourist spots. So I can visit the museum incidentally.
- ➔ Art museum in Europe. Grand design. Bright and with natural light from the glass-made rooftop. The paintings are so big. Glade to visit there. Since the paintings are big which I can look into the detail of each one. Also, not so many people in this picture which provide a good condition for study those paintings Feel very calm. The place is very quiet. And I will spend 2 to 3 hours there. I wish to stay longer but I think it is not allowed to eat or drink inside. I would go to the museum on a rainy day. Or schedule it if there is drizzle. then I can save time for outdoor activities like walking around the city or go to the rural area.
- ➔ An art museum in Europe. There are big oil paintings on the wall. All the architecture is in western style. I like it and will visit since it is about their local culture or history. Very valuable to me. Since it is indoor, no need to worry about the weather. I may choose a day in bad weather to go to the museum. But also need to check whether the museum is open or not. Opening hour and any tickets needed. Any famous pieces are displaying. Nothing special.

Beach

- ➔ A beautiful beach with nice weather. Only a few people there so it's quiet and good for visiting. Very comfortable. It brings me back to the time in Australia. The sand is fine and the sea is clear. I may spend 3 to 4 hours there and get relax. But I can't swim. Maybe I will go there in the morning or afternoon but not the hottest time. The weather of course (not too hot and not raining). No winter. If we have no schedule then I may go there but not a compulsory activity for me.
- ➔ The beach is big and with fine sand. That's not many people on it. And the weather is nice with a blue sky. Enjoyable. Not crowd with people and visitors. The beach and the sea are clear which provided a good view to enjoy with. I would like to visit there. Maybe just chat with friends and meet new friends. Listening to music or enjoy the view there are so chill. I feel the warmth and heat. I may spend 2 to 3 hours there. The weather should be sunny and not too cold. And not raining. I tried surfing once in Taiwan. However, the experience is not perfect at all since it was cloudy which ruined the sea view. And when we were about to leave, it started raining. The experience was a bit embarrassing
- ➔ The sky is blue and the sea is clean. The weather is very good there. and not crowd. Very ideal beach. Attractive. Feeling like hot summer and enjoying my holiday somewhere like Thailand or Sanya, China. I won't stay there for too long to avoid sunburn. Maybe in the morning or evening would be great if the weather is fine. No rain no grey sky and not too cold. I remember the trip to Bangkok. But I didn't go to any beach coz there is no beach. So I went to the swimming pool in the hotel. That's sunny and I got sunburn just after an hour of swimming. And it was not yet the midafternoon.
- ➔ The beach is big. And the weather is nice with a blue sky. The water is clean. Comfortable. Very natural. I will go since I love to enjoy the sunshine and the natural environment. I may feel the heat and sea breeze. I can spend a whole day there sunbathing, playing volleyball, chatting with friends, taking photos, swimming, etc. The weather would be the only concern. I won't go to the beach if it is raining or cloudy. And I prefer to go to the beach in summer. I like going to the beach in summer. It reminds me of the experience in Thailand. I went to a beach like this although it was very hot. That was so pretty and I felt surrounded by nature.

Skiing

- ➔ Snow, tall tree, cable car, people are skiing, mountain. Amazing. I really wanna try skiing especially the outdoor one. Very excited. I may book the resort there and spend half a day or even the whole day skiing. Maybe I will join a beginner tutorial or ask experience friends to go with me. Also, I may try other facilities there if there is a hot spring or something else. The season is important for outdoor skiing resorts so properly winter. And there must have enough snow but not snowing heavily. Good to have sunshine and not so windy. I think climate change is a big issue that may lead to a longer closing time for the outdoor skiing resort. Second, accompany is important so I may ask my friends or family to go with me. Third, safety. Preparation is needed and gets the safety equipment. I remind me of the winter in Lapland Sweden. I tried snowmobile and pet the dog there. Playing with snow is amazing especially for people living in a place without snowing.
- ➔ People are excited. They were having fun in the outdoor ski resort. Cable car services are provided for a visitor to ski from the top of the snow mountain to the bottom. Positive. Calm and clean coz of all white. And the activities should be fun and exciting. Very excited. It reminds me of the experience of skiing. That was a sunny day, not so cold and we geared up before we joined the warm-up tutorial. At first, we practiced in the lower zone. We spent 2 hours handling the basic skill and we went up to the higher area to give a try on skiing. I was excited but at the same time worried about getting injured. therefore I ski carefully and slowly to avoid injury. Weather is a really important factor. If there is heavy snow or not enough snow, we might have to cancel the activity. So we were so lucky.
- ➔ Skiing at the snow mountain. White. Must be so cold there. thick snow there. Excited. skiing would be so much fun. And I haven't tried yet. Will try skiing in the future. Freezing. And would like to start warming up and learn some basic skills to keep me warm. Weather is important I think. I will check the weather the day before and that day. Since there must not have heavy snow coz it would be unstable and may lead to the closing of the venue or avalanche event. No. haven't skied before.
- ➔ Snow and people are skiing. Cable cars are constructed so it is a high mountain. Interesting since that's an outdoor activity and rare in hong kong and other tropical countries. Very excited since it is hard to see a lot of snow and even a snow mountain. I will spend 1 to 2 days there. I will take a skiing tutorial to learn some basic skiing skills. But it may take around half day. So if I have time, I would like to spend 2 days there to enjoy skiing at a snow mountain. Weather is the only concern since that is an outdoor skiing resort. If the weather is not stable, the resort will close and may pose danger to the visitor. Like heavy snow and rain on or before the day visiting the place. I haven't experienced skiing but I experience snow before. That's romantic and freezing.

Shopping

- ➔ Shopping mall the modern one with many luxury brands. Very expensive which not my cup of tea and not at my affordable price. maybe spend around 2 hours there since not that attractive. If there are local cultural elements in the mall will increase the attractiveness of me. Like local brand, food, or performance. When there is no schedule or when the weather is not good for outdoor activities. Like heavy rain or very hot outside. Or maybe nights since shopping malls have a longer opening hour.
- ➔ Four modern shopping malls. city thing. Very expensive and time-consuming. This is not my thing on the trip. I may not go to a shopping mall on purpose. Bored maybe. I accept having lunch or dinner in the mall but not spending more than an hour in a standardized shopping mall. That's not my point for traveling. If I have to go to any of the shopping malls, then must be a hard time on a trip. Like escaping from hot weather, raining, getting supply. Spending my time in a shopping mall is meaningless.
- ➔ Shopping malls with many shops. maybe the luxury one. Very modern and similar to hong kong shopping malls. Modern and not a valuable activity. Cold since there always set the temperature the lowest. Like an air-conditioner. it may freeze me out. If my friends want to go shopping, I will go with her at night since we can free our time at night. In the daytime, I prefer to go to a tourist spot or museum or somewhere valuable. Or if the weather is too bad, I might spend my time in the mall. to take a rest there too.
- ➔ Big shopping malls may be with luxury brands. Bored. I won't go there as a tourist activity. Not as valuable as other tourist spots and activities. Bored. Since that is not a local market and are similar to hong kong shopping mall. So that's meaningless to visit there. I would spend my time in a shopping mall when the weather is not available for outdoor activities. Like extreme hot days and heavy rain and snow. Or there is no schedule planned for that day.
- ➔ Four modern shopping malls. city thing. Very expensive and time-consuming. This is not my thing on the trip. I may not go to a shopping mall on purpose. Bored maybe. I accept having lunch or dinner in the mall but not spending more than an hour in a standardized shopping mall. That's not my point for traveling. If I have to go to any of the shopping malls, then must be a hard time on a trip. Like escaping from hot weather, raining, getting supply. Spending my time in a shopping mall is meaningless.

Preference on amusement park

- ➔ I would prefer the third amusement park since there are both inside and outside facilities and there are lot of trees which can provide shading when it is very hot. Also, the artificial fountains there are good and cool down the temperature.
- ➔ I would prefer the second one coz there is a nice sea view.
- ➔ Third theme park would be better. There are cover and nice view with artificial fountains. I can go inside if it is too hot or a sudden rain.
- ➔ I would prefer the third one since there are artificial fountains and sufficient indoor and outdoor facilities. I think the second one has too many outdoor facilities and if there is sudden rain then i have no idea where can I go or play.
- ➔ I would prefer the second one coz there is a nice sea view.
- ➔ I prefer the 2nd one since it has the most outdoor facilities and the sea view is so attractive.
- ➔ I prefer the 3rd park. 2nd park is flooded with outdoor facilities. I think indoor area which provide air conditioner is more comfortable.
- ➔ 2nd park. I have visited there.
- ➔ 3rd. It is so beautiful and with different games and facilities and view.
- ➔ 3rd coz the sightseeing train is so attractive. And there is a beautiful view.
- ➔ 3rd various facilities

Preference on activity

- ➔ Prefer museum. Can know more about the local culture and history.
- ➔ Prefer skiing coz I love outdoor activities. If there is indoor skiing resort, I would like to have a try too which is more stable and safe.
- ➔ Prefer skiing coz I never been there once.
- ➔ Prefer skiing coz I love outdoor activities. I want to try skiing. And wan to experience a white winter. Its hard to have cold winter in Hong Kong these years.
- ➔ Prefer skiing coz I love outdoor activities. If there is indoor skiing resort, I would like to have a try too which is more stable and safe.
- ➔ beach since the sea is very blue and clean
- ➔ skiing. Since other activity can be experienced in Hong Kong too.
- ➔ beach I like outdoor activities.
- ➔ skiing. Coz that's a special activity to me.
- ➔ beach since the weather and the view is so match.
- ➔ skii. Never experienced before, very look forward to it.

[Part 3]

Typhoon

- ➔ What a mess. The trees were locked down and so do the lamp post. Leaves are everywhere. That's dangerous and I may not want to go there to avoid putting my safety in danger. If I were in the image I would first check if the park is opening. If it is still open, I will continue my schedule but spending more time in the indoor area than the outdoor area. Coz some trees may collapse afterward. If the park is closed, maybe I will look for somewhere indoor and still open. Like café and shopping mall. otherwise, I can only go back to the hotel. If I am going to visit the park soon, I may postpone the schedule.
- ➔ Trees and some facilities were damaged. Leaves were everywhere. Like a disaster had been though. Feel horrible. And life might be threatened. Sure not visit it since the facilities may be affected and not safe anymore until the engineer checked or after maintenance. If I were there, I will leave immediately. And change to indoor activities like a shopping mall, museum, café, etc. if I will go there soon, I will check on the website see any notice about the damage or any arrangement on the opening of the park. I think there will be a great possibility to change the schedule.
- ➔ Trees and lamps are broken by the typhoon. The staff is cleaning the street. Disastrous. That may cause great maintenance costs. I will reschedule it since it may cause danger. If I were there, I will cancel the visit and go back to the hotel. Or shopping mall I guess.
- ➔ The facilities and the natural environment are destroyed. Disastrous. I won't go there since that was so messy and inconvenient to walk and not safe too. If I were in the image, I won't go inside the theme park and may postpone the schedule to another day. I will change the schedule to an indoor area. If I am going there soon but after knowing this situation, I will change to the schedule of next day. Typhoon in Hong Kong is very common, the damage may lead to the safety issue of some outdoor facilities.

Rainstorms

- ➔ I may be wetted. That's trouble. And I will stay indoors forever until the rain stop. I won't take the risk to leave the park since I have already come in and I would like to stay in this beautiful land to enjoy the atmosphere there. I may go to the café or browse around the shops there.
- ➔ that would be so sad. if I prepared a raincoat I may keep it on my schedule but also depends on whether the facilities still in service or not. If I don't have any preparation for this situation, I may stay in an indoor area and try to enjoy the time there. Not to waste the money and mood. And if the rain stop, I will check the observatory to see whether the rain will come again soon. And then continue my schedule. I believe the park will help us make the choice.
- ➔ Feel troublesome coz I cannot play in the outdoor facilities. But I will stay in the shop or find a café and restaurant there. if the rain stop, I will leave the park after I try all the indoor facilities.
- ➔ troublesome. I hate to get wet. If I were there I cannot play the outdoor facilities and can only stay in the shop or other indoor area. I will stay at the same place and wait for the rain to stop. Since I don't want to walk to other indoor facilities, I may only stay in a single place. If indoor facilities are connected with some shelter, I may try to go somewhere indoors to enjoy my remaining time in the park.
- ➔ That would be so sad. if I prepared a raincoat I may keep it on my schedule but also depends on whether the facilities still in service or not. If I don't have any preparation for this situation, I may stay in an indoor area and try to enjoy the time there. Not to waste the money and mood. And if the rain stop, I will check the observatory to see whether the rain will come again soon. And then continue my schedule. I believe the park will help us make the choice.

Snowstorm

- ➔ traffic is affected by the snow. I will continue my schedule and enjoy the snow outside but avoid stay too long outdoor. And I will choose underground transport like MTR to avoid longer commuting time. But I won't cancel the schedule
- ➔ I believe that is so cold outside. And people are wearing down jackets. I think snowing is not a big deal to me even it is very cold. Korea as a developed country must be well equipped with heating services, so do other developed areas. I may continue my schedule that day but may go out earlier since the traffic will be in trouble. And I will double-check whether the places I am going to are still opening. More indoor activities will be considered to warm our bodies if needed.
- ➔ snowing is fine coz that was amazing and romantic. I may change my schedule to indoor activities like sitting in a café to enjoy the snow. I will still go out but prefer indoor activities.
- ➔ I believe that is so cold outside. I will change my schedule to an indoor visit. Staying long time outdoor is avoided. And I will go back hotel earlier since that would be much colder at night.
- ➔ Umbrella and raincoat were used. The view is not good since it is snowing. The sky is grey and the visibility is low. I will still visit the amusement park. I cannot take a nice picture but the atmosphere in the park would be very romantic. That's real snow, not the fake one in HK Disneyland and ocean park. I am sure I will be thrilled. And I will reduce outdoor activities and change to indoor facilities and stay longer time in café or shops there.
- ➔ Snowing and with the grey sky. I may change my schedule since that would be inconvenient to put on the raincoat and put it off in the indoor area. Also, when it snows, the sky would be very dark and affecting my mood in the park. That was not what I expected. And my satisfaction or expectation in the park would reduce. If I already in the park, I will stick to my schedule but try to walk slowly to prevent falling from the slippery floor. Snowing in an amusement park is not a big deal since there are heaters and shelter. But if I haven't entered the park, I would postpone it or changed to another indoor schedule.

Hail

- ➔ I may afraid of the safety. They are so big and if people get hit may cause them to die. And the facilities will be damaged. I will find a near shelter to get the cover. And I will stay indoor to spend my remaining time in the park. I won't leave unless the park is going to close. That cost a lot for me. If I am planning to go there, I would properly cancel it for just the same reasons as the previous one.
- ➔ Hail in an amusement park. That's fatal. Hails are fatal and hailing in an amusement park is fatal too. The outdoor facilities will truly be damaged and causing a safety issue. If I were there, I will find cover immediately and stay indoors forever. Cause that's hail. People will die. If I am going to the hailing park. I will change my schedule for sure. Only staying in a hotel and watch Netflix. Or maybe just wait till the end of hailing and going somewhere indoor nearby the hotel. I don't wanna risk my life.
- ➔ Hailing and maintenance in the park. That's dangerous. The huge ice can coz death and damage facilities. If I were there, I might leave after the hail event. If I am planning to go there soon, I will cancel it. I think all the checking and maintenance work cannot be finished in a short period or even days.
- ➔ Hailing. That rare in tropical areas. But that is very dangerous and fatal. If I were in the park, I will find shelter immediately. And stay indoors forever. If I haven't entered the park, I will change my schedule for sure. The hail can kill people and damage outdoor facilities or buildings hardly. That's very risky. So I will stay in the hotel or just continue the indoor schedule.

Very hot warning

- ➔ It's very hot outside. there is a big sun and a very hot warning. I will bring a lot of water and prepare a mini fan and buy ice cream to get cooler. And try to stay indoors until the evening. I won't shorten my schedule since the ticket is so costly. And there is shelter provided. And even if I am going there soon, I will stick to my original plan that is to visit there. I think I can bear the heat. And I think even I change to another day, the possibility of having a very hot warning is high too. So adjustment seems useless in this case.
- ➔ I can see the shining sun and a warning. the park will be heated up since there is no tall building provide shading. If I were there I will drink more water but I continue my schedule since 'hot' is not a big issue in Hong Kong. I get used to it. if I am going there soon, I will put on the sunscreen cream to prevent getting sunburn. Also, I may prepare a fan or cooling towel. Something that cools down my temperature. I may not bring an umbrella with me but a cap since that would be so clumsy. Sunglasses should be taken with me too. And there is some indoor area which helps us escape the heat.
- ➔ It's very hot. Sun is shining. The time is about midafternoon, I guess. This reminds me of the day visiting Hong Kong Disneyland. Hong Kong is always hot. And I was melting in the park which makes me a bad temper. I will stick to my schedule and still visit the amusement park since I get used to the hot weather in Hong Kong. Some indoor facilities are providing an air-conditioner for me to cool down. But I will still avoid staying outdoors for a long time. And avoid trying on outdoor facilities. They are as hot as a hot pot. Umbrella, sun cream, water, and a mini fan will be brought with me to try to comfort myself under this hot weather.
- ➔ That's very hot. Like the summer in Hong Kong. And there is a very hot warning. I am quite fine with this situation. I won't have any adjustments or changes to my schedule since a very hot day can last for a long period like a month. And That's a common condition in Hong Kong, so not a big deal affecting my decision to visit the amusement park. I think a sunny day is better than other situations mentioned before. There's shelter and indoor facilities everywhere in the amusement park I guess. So the temperature and the strong UV would not be a problem. And I think I can get prepare for it like sun cream, umbrella, sunglasses, etc.

The most influential weather event

- ➔ I think typhoon would be the most influential weather event that affecting my willingness to visit amusement park. Since it is fatal and building can be damaged. And for the hailing, I think that is still unusual that I never experience that. And that is a short event which causing an assessable impact.
- ➔ I think hailing would be the most fatal extreme weather event that affects my schedule. Typhoon, snowing and heat have their own intensity level. but hailing is fata and cause damaged to everything outdoor. And at this moment, I have overcome typhoon, snowing and heat wave but not hailing. So I don't want to risk my life on it.
- ➔ I think I am more get used to very hot day and it is not that fatal compare with others. And I would avoid going out when hailing event. That's fatal and lead to many uncertainty of the facilities.
- ➔ To me would be the typhoon since it can bring a large damage to the facilities. And it takes time to clean the obstacles and maintain the infrastructure. So far, heavy snow and hailing are quite far away from my personal experience.
- ➔ I think hailing would be the most fatal extreme weather event that affects my schedule. Typhoon, snowing and heat have their own intensity level. but hailing is fata and cause damaged to everything outdoor. And at this moment, I have overcome typhoon, snowing and heat wave but not hailing. So I don't want to risk my life on it.
- ➔ heavy snow and typhoon. I can bear the heat since that's common in Hong Kong. And the impact and influence is weaker than snow and typhoon. I am very vulnerable to low temperature so it will affect my satisfaction. I may stay in the hotel and do nothing.
- ➔ Typhoon since it leads to safety issue. You cannot go out. And for heatwave and snowstorm that about the temperature but less related to safety issue. Hail is only a short period event which is totally different to a longer period typhoon.
- ➔ Typhoon and snowstorm. I experience typhoon before so I know the impact and how destructive it is. I have never experience hailing. And very hot day is very common in hong kong, that is not influential at all.
- ➔ Typhoon and hail. They are dangerous while heatwave is more adaptable.
- ➔ heavy snow. Since I haven't experience it and I am not familiar with it. And for very hot warning and typhoon. That very common in Hong Kong so I get used to them. The hot weather is bearable and typhoon has magnitude so the intensity depends.
- ➔ Typhoon. The strong typhoon is very dangerous. It is not covered in the insurance and activities and transport are closed. If you go outside, your life may be risked. For snowstorm, you can stay indoor which is not that influential to your trip in the amusement park. Heatwave is not a big deal. Hong Kong experiences 9 months of heatwave a year. We cannot escape it and we get used to it. For hailing, it is fatal but it only last for a few minutes which is less destructive to typhoon.

Appendices

D. Consent Form and Information Sheet for PARTICIPANTS

THE EDUCATION UNIVERSITY OF HONG KONG Faculty of Liberal Arts and Social Sciences

CONSENT TO PARTICIPATE IN RESEARCH

The sensitivity and vulnerability of tourists to climate change: Amusement parks in different climate zones

I _____ hereby consent to participate in the research supervised by Dr. PEI Qing and conducted by Ms. Wong Ka Yan, who are staff / students of Faculty of Liberal Arts and Social Sciences in The Education University of Hong Kong.

I understand that information obtained from this research may be used in future research and may be published. However, my right to privacy will be retained, i.e., my personal details will not be revealed.

The procedure as set out in the **attached** information sheet has been fully explained. I understand the benefits and risks involved. My participation in the project is voluntary.

I acknowledge that I have the right to question any part of the procedure and can withdraw at any time without negative consequences.

Name of participant

Signature of participant

Date

INFORMATION SHEET

The sensitivity and vulnerability of tourists to climate change: Amusement parks in different climate zones

You are invited to participate in a project supervised by Dr. PEI Qing and conducted by Ms. Wong Ka Yan, who are staff / students of the Faculty of Liberal Arts and Social Sciences in The Education University of Hong Kong.

This study aims at finding out the sensitivity and vulnerability of Hong Kong young tourists towards different climatic zones. It surveys tourists' adaptation behaviors to climate change. This research looks for undergraduate students from Hong Kong Universities. It is because Hong Kong youngsters are interested in travelling and may have a basic understanding on climate change issue. About 30 participants are required in this study. A google form will be sent to you for collecting contact information such as email address or skype account for conducting interview through video conferencing. In the interview, you will be asked to express your opinion on climate change, travel experience, and habit. Also, you are encouraged to express your feelings on two sets of photos and videos. The interview will take no more than 45 minutes. The study involves no potential risk.

Your participation in the project is voluntary. You have every right to withdraw from the study at any time without negative consequences. All information related to you will remain confidential, and will be identifiable by codes known only to the researcher.

This study will only be used for academic purpose and will not be published or share with larger audiences.

If you would like to obtain more information about this study, please contact Ms. Wong Ka Yan at telephone number or their supervisor Dr. PEI Qing at telephone number

If you have any concerns about the conduct of this research study, please do not hesitate to contact the Human Research Ethics Committee by email at hrec@eduhk.hk or by mail to Research and Development Office, The Education University of Hong Kong.

Thank you for your interest in participating in this study.

Wong Ka Yan
Principal Investigator