

How Can a Non-Personal Interpretive Guide Increase Place Attachment for Visitors,  
Encourage the Appropriate Development of Sustainable Community-Based Ecotourism,  
and Increase Knowledge of the Desert and Coastal Ecosystems  
and Migratory Whales of Baja Mexico?

by

Mahin Hamilton

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Hamline University

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Content Expert: Erin Francke

Peer Reviewers: Krista Espelien and Patty Born

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## PROJECT SUMMARY

This capstone project examines the question: *How can a non-personal interpretive guide increase place attachment for visitors, encourage the appropriate development of sustainable community-based ecotourism, and increase knowledge of the desert and coastal ecosystems and migratory whales of Baja Mexico?* For this project, a plan was created for the development of a non-personal guide intended for whale watchers in Baja California, Sur, Mexico. Because personal guides are not always possible, a research-based and thoughtfully planned non-personal guide will offer an economically viable option for businesses and tourists in remote areas.

### **Audience**

The main audience for this plan is the ecotourism organizations and boat captains who charter whale-watching trips in Baja California Sur, Mexico. Currently, there are numerous companies operating in that area that may be offering tours without an interpretive guide, either personal or non-personal. These adult business owners may come from varied backgrounds and education levels, therefore the language is kept clear and simple, catering to a middle school reading level.

The indirect audience of the plan are the visitors and end-users of the non-personal guide that can be created and implemented with the content found in this plan. Initially the guide will be planned for English-speaking adult learners, who are the primary customers of the area. Future modifications can be made for children and people who are visually or hearing impaired. A properly developed interpretive guide could also be translated into other languages according to supply and demand.

## Real-World Ecotourism That Promotes Place Attachment

This project has real-world applications for visitors, locals, small business owners, and ecologies around eco-tour areas in remote areas of Baja California Sur, Mexico. A guide created with this plan will help bridge existing language and time gaps by creating an opportunity for information exchange and understanding. Currently, there is no known interpretive guide used in this area, so while visitors are able to see whales and the environment and communities around them, they are unable to learn much from the boat captains, due to the language barrier.

The guide will include information about the coastal ecosystems and whales that migrate to the lagoons where tours are held, as well as the culture and customs of local communities. The guide will be used by whale watchers for the 2-hour drive between La Paz, where the tour is booked, to the location where they will board small vessels for their tour. The interpretive guide will also continue throughout their return drive.

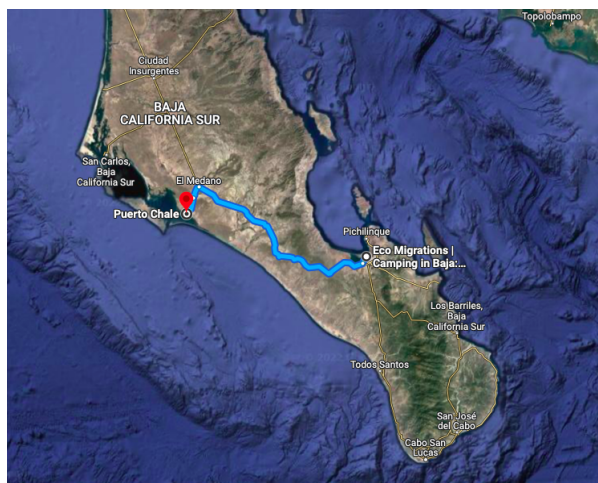


Figure 1. Route from La Paz to Puerto Chale. Source: Google Maps.

By creating a guide that can be used before, during, and after a whale-watching tour, visitors will learn more about the area, which may increase their perceived emotional attachment to the whales, people, and ecology of the Baja peninsula. Four principles of interpretation will be

used in the guide to help increase place attachment in visitors (Tătărușanu, 2021). The guide will also include ways to act and live sustainably. Finally, the guide will include examples of how visitors can take action during or immediately following their tour (Orams, 1995) and engage in active conservation practices. Using the guide can help them remember the visit positively, tell others about it, and perhaps be urged to make changes in their personal lives.

For eco-tour whale-watching companies and remotely operating boat captains, this plan offers a methodology for interpretation that supports sustainable economic growth that is sensitive to the sustainability of the local ecology. Boat captains and whale-watching companies will learn about sustainable eco-tourism business practices that can help conserve their culture, solidify their livelihood, and preserve the environment around them for generations to come. Appendix B includes a non-exhaustive list of ethical considerations that should be utilized by guide creators and local communities. The end result is a culturally and environmentally sustainable plan that offers economic growth to the area and increases knowledge, attachment, and empathy from visitors. Business practices like this can help create tourism economies and conservation efforts that are culturally and ecologically sustainable over time.

### **Technological Considerations**

The plan will include options for creating a guide that is internet-based with audio and written dialogue. The end result will be a guide that is formatted to be downloaded to a smartphone or tablet. For safety purposes, drivers who are traveling alone will be able to listen hands-free. Groups of two or more can listen to the guide and read along on their phone or with a printed guidebook. Users could also choose to skip around the guide to listen to the topics that interest them the most. The guide can also be timed to fit with the geographical markers of the



journey, which may encourage people to stop, get out of their vehicles, and look out over the surrounding area.

In conclusion, this project fills a real-world need for ecotour companies in the Baja California Sur area of Mexico. It also fills an existing gap in the broader fields of interpretation, whale watching, and community-based ecotourism. With proper development and minimal adaptation, this plan could be used anywhere globally and would be especially useful to companies operating in remote areas with little to no cellular signal.

## PLAN FOR A NON-PERSONAL INTERPRETIVE GUIDE

### A supplement to whale watching in Baja California Sur, Mexico



Figures 2-4: Gray whales in Bahia Magdalena, 2022 Image Credit: Nicole Nelson

This project describes a plan that ecotour companies can utilize to build a non-personal interpretive guide for whale-watchers in Baja California Sur, Mexico. The plan includes instructions on how to organize the topics of greatest interest along the route between La Paz and Puerto Chale, which sits on the shores of Bahia Magdalena where gray whales congregate every winter to mate and give birth. The plan also explains how to properly apply attachment theory and educational models for adult learners. Technological considerations are also included so that the guide can be downloaded and accessed, even where there is little to no cellular service.

This plan also includes information about sustainable ecotourism development, so that ecotour companies and local individuals, organizations, and ecosystems can all thrive. Boat captains and whale-watching companies will learn how to develop business practices to help sustain their culture, solidify their livelihood, and preserve the environment around them for generations to come.

To implement this plan and create a non-personal interpretive guide, the following elements must be accomplished:

1. Conduct recorded interviews with local fishermen and eco-tour boat captains.
  - a. Translate interview transcripts into English.
  - b. With permission, take photos of interviewees, their boats, and the village.
2. Collect and add the content of each topic, organized according to the plan.
  - a. Insert photos as necessary into a video or written format.
3. Devise the best method to convey the information, using the appropriate forms of technology, as discussed in the plan.
4. Print and/or upload the draft guide.
5. Test the guide in the chosen format(s) to ensure that all components fit together well.
6. Make final edits and adjustments to the guide.
7. Print and/or upload the final draft of the interpretive guide for public use.

In relation to small business owners and local communities, the following steps should be taken:

1. Local leaders and ecotour companies should host a town meeting to discuss potential changes and areas of growth for the community that will encourage environmental and economic sustainability.
2. Establish which possible options will be developed and by whom. Create goals and a timeline for each level of development, including a deadline and follow-up meeting.

3. Consider important local customs and culture; develop economic opportunities that encourage the sustainability of those customs and traditions in ways that also promote environmental health.
4. Keep economic opportunities local, and minimize outside investors, so that the money earned in the area stays in the area.

### **Culturally Sustainable Ecotourism**

Successful development of community-based ecotourism is not easily achievable. A community's capacity varies from one geography and one culture to another. It takes a high level of community participation to inspire some community members to participate and contribute to the development of community ecotourism programs, especially when brought in by outsiders (Mohd Noh et al., 2020).

To migrate from conventional and traditional ways of life to a more sustainable one, communities must learn how to live a balanced life that offers a consistent economical income by conserving nature and educating tourists about the importance of protecting nature (Mohd Noh et al., 2020). They have to be educated enough about the importance of conservation issues and practices to learn how to survive without the overuse and depletion of their ecosystems. In other words, they cannot operate an ecotourism business focused on rainforest conservation by day, and clear-cut those same forests by night. The economic benefits have to equal or outweigh these changes in behavior to create a viable economy in the long run for their survival with this new livelihood.

A key to the success of a community-based ecotourism operation is the active involvement and participation of the local community in the earliest stages of development. This

will create a higher sense of belonging and make any tourism development more likely to be sustainable in the long term (Mohd Noh et al., 2020).

### **Place Attachment and Interpretation**

The use of attachment theories in the fields of interpretation can increase people's desire to protect the places that they care about. This plan will utilize four principles of interpretation, as proposed by Tătărușanu (2021).

#### ***Understand the Impacts***

The first principle is to help visitors to better understand the impacts of human activities and the need for environmental protection in the area. An example of this to include in the guide would be to discuss how boat activity is regulated and monitored for the safety and well-being of whales, and why it is so important to follow those regulations. Another example might be to highlight the definitive plant of the area, the saguaro cactus. By discussing the features of these plants and their importance in the landscape, people will better understand the importance of protecting them.

#### ***Use All Five Senses***

The second principle is to facilitate visitors' experience of all five senses during the tour, which can encourage an increase in empathy and concern for a place. Within the guide, language should be used to encourage visitors to look for certain things along their journey, to stop and get out of their vehicle and see, smell, and listen to the desert and coastal area. They may be encouraged to feel the soil beneath their feet or touch specific plants. The guide should include opportunities for guided visualizations that will help visitors feel connected to the place.

### ***Encourage Self-Reflection***

The third principle is about encouraging people to embark on self-discovery and active searches for wildlife. Different points in the guide should include opportunities for self-reflection by asking open-ended questions that can encourage visitors to increase their care and concern for the world around them and think about how they can be involved in conservation efforts.

### ***Use Multiple Types of Interpretation***

The fourth principle is to create interpretation styles or guides that can adapt to the interests and motivations of visitors that come with different life experiences, cultural awarenesses, and interests. One way to do that is by including interview transcripts and photos of local boat captains and community members. Getting to know these people will help visitors see life from a local's point of view, which increases empathy and understanding, regardless of the visitors' backgrounds.

In a study by Weiler & Smith (2009) of zoo visitors, findings confirm and extend previous research that the cognitive impact of interpretation was greater with multiple layers of interpretation. The same study found that no individual interpretive medium performed better in terms of any of the ten indicators of visitor cognitive, affective, and behavioral outcomes. Results suggest that the more types of media that are used to communicate with visitors, the greater the impact will be. Each additional layer of interpretation produced higher mean scores on every indicator, many of which were statistically higher.

According to Orams (1995), the most important factor for increasing affection and creating a connection to place in whale watchers is to ensure they see the value and interconnectedness of all life. Both critical environmental educators and humane educators argue that we need to replace anthropocentrism with biocentrism, the belief that everything in the

biosphere has intrinsic value and an equal right to exist alongside humans, that the natural world is not just a resource for human use, and that all life forms are inextricably interconnected (Russell, 2002).

### **Environmental Conservation Action Points**

To encourage sustainable development for the local communities around ecotour destinations, it is important for local people to take ownership in efforts that benefit their local economy and the environment. It is also beneficial to give visitors the means of taking action and exercising their newfound excitement about the area during and after their tours.

### ***Visitor Engagement Examples***

The list below contains examples that show how visitors can take action during or following their tour to engage in active conservation practices.

During the tour, provide activities on-board like:

- a. Participate in a clean up the boat
- b. Pass around touch-and-see specimen samples (responsibly sourced) from whales and other underwater species

After the tour, provide opportunities to get engaged such as:

- c. Attend a community-led beach clean-up
- d. Provide printed handouts with a list of ways to reduce carbon emissions and waste
- e. Provide petitions to sign, environmental organizations to join, and environmentally friendly products to buy

- f. Organizations accepting monetary gifts for research and education, how to join an NGO or mailing list to receive further information, ways to give to an ‘adopt a whale’ program,

### ***Local Community Engagement Examples***

The list below contains examples of how locals and ecotour companies can encourage environmentally sustainable economic growth:

1. Create a community-led craft market that utilizes responsibly sourced local materials for sale.
2. Open a locally-owned and operated restaurant for visitors that exclusively sells local seafood and environmentally friendly items (for example, no plastics use).
  - a. Cooking classes using local ingredients and indigenous recipes
3. Self-monitor the responsible use of waterways and fishing practices, as well as personal consumer choices to positively impact the environment and whale habitat.
4. Tour companies could request that visitors send copies of their best pictures to add to the photo ID catalog (or social media profiles) (IFAW, 1997).
5. Tour companies could expand the opportunities to desert hikes, beach clean-ups, mangrove planting expeditions, etc.



## **Increasing Knowledge of the Desert and Coastal Ecosystems and Migratory Whales of Baja Mexico**

What is the story that needs to be told? This plan will help create an interpretive guide that serves as an introduction to whales and gray whales, the geology and biodiversity of the Sonoran desert, the Pacific coast, and the lagoon of Bahia Almeja, as well as the people that inhabit the land around it. Details about methods for creating a guide and how and where to use topics are covered in the following sections.

### **Methodology**

Data analysis from the focus group, information about learning theories, details about how to best format the guide, and technological considerations are included below.

### ***Focus Group Findings***

Data from the focus group shows overwhelmingly that an interpretive guide along the journey between La Paz to Puerto Chale and back will be well-received and appreciated by visitors. The focus group also provided clarity on which topics will work best in each section of the journey. They find that in the first half of the journey, details about population size, lifestyle, culture, desert ecology, and information about whales will be most interesting to visitors. Results find that information about advocacy and ways to take action to protect the whales and the culture of local people will be best received after whale watching and on the way back to La Paz. The return journey can also be a good time to discuss coastal ecology and the richness of upwelling of currents, mangroves and sea grasses, and so on. Full results of the focus group are available in Appendix A.

## *Learning Theories*

The keys to translating knowledge into action are ownership and empowerment. Those who act are those who have a deep personal understanding of the issues, and their human and environmental implications and feel a personal investment in addressing and solving the problems. Those who act are those who feel that they can make a difference and who know how to do so (Russell, 2002).

**Changing Your Mind.** Participating in community-based ecotourism can bring about deep transformational shifts. Research in the context of wildlife-based ecotourism experiences (Ballantyne et al., 2011) has found evidence of the four stages of the experiential learning cycle, which include a great deal of self-reflection and the discovery of new ideas and concepts, through the experiences of ecotourism. Mezirow's model of transformative learning has grown to a position of central importance to the field of adult education. Briefly stated, this theory explains a way of learning which causes people to question and revise previously unexamined frames of reference (Walter, 2016) Said simply, putting this theory into practice can help adults see things differently and may even cause them to change how they see the world around them.

***Steps of Transformative Learning Theory.*** Mezirow's theory moves learners through 10 phases:

1. **A disorienting dilemma:** The more we learn about the environment and develop environmental consciousness, the more likely we are to have strong emotional experiences that produce restorative, transcendent, or spiritual emotions. These strong feelings can create disorienting dilemmas within us that may then stimulate subsequent stages of transformative learning (Walter, 2016). This can lead to:
2. **A self-examination** that is highly emotional,

3. **A critical assessment** of one's assumptions and worldview,
4. **Recognition** of shared discontent with others,
5. **Exploration** of new ideas and ways of life,
6. **Planning of a course of action**,
7. **Acquisition of knowledge** and new skills,
8. **Trying out new roles**,
9. **Building of competence and self-confidence**, and
10. **A re-integration** of a new perspective into one's life

*Stages of Experiential Learning.* Ballantyne et al.'s 4 stages of experiential learning:

1. **Have a *concrete experience***
2. **Experiencing *reflective observation***
3. **Understand *abstract conceptualism***
4. **Participate in *active experimentation***

In their study, visitors' responses four months after participating in a wildlife tourism experience (the *concrete experience*) showed evidence of *reflective observation* through which they had processed and created meaning from their experience. Some visitors appeared to have come to a new understanding of their environmental responsibility (*abstract conceptualization*) which they had attempted to translate into new ecological practices in their everyday lives (*active experimentation*). This process is illustrated by the following comments made by visitors to four different wildlife tourism sites:

1. *I saw the turtles walk to the sea* (concrete experience) *and I felt that humans need to protect them* (reflective observation); *the world is for all of us* (abstract conceptualization). (Turtle-viewing ecotourist)
2. *I felt completely relaxed watching them* (concrete experience) *and panicked at the same time as to how to protect these amazing animals* (reflective observation, abstract conceptualization). (Whale-watching ecotourist)

Although only a minority of visitors progressed through the full cycle of experiencing, reflecting, thinking, and acting, the fact that *some did* provides evidence of the potential of ecotourism experiences to have a lasting and life-changing impact (Packer & Ballantyne, 2013).

As a result of their experiences, visitors may become less self-centered, less materialistic, more conscious of the importance of family and community, and more involved in social justice advocacy. The end result of moving through Mazirov's steps of transformative learning in response to environmental experiences can lead to the desire to make concrete change, and take action to protect and conserve it (Walter, 2016).

Outdoor educators and scholars argue that direct experiences with nature are imperative for evoking a sense of wonder and curiosity, and for facilitating the development of relationships with other life forms and the places they inhabit (Russell, 2002 as cited in Bell, 1997; Weston, 1996). The role of conservation and advocacy in whale watching interpretation creates an ideal environment for a strong affective transition in visitors, from caring *about* to caring *for* the environment (Russell, 2002).

When applied to the development of environmental consciousness, visitor encounters with immersion in nature may evoke strong emotional experiences of awe, wonderment, or

transcendence. Such experiences may engage the five senses, and can be profoundly spiritual, and emotionally and physically restorative (Walter, 2016). Keeping these theories in mind while developing an interpretive guide is imperative to creating these transformative experiences for visitors.

### ***Formatting***

Perhaps the largest challenge in planning an effective non-personal guide is to impart meaning and connection between a place and the user in an engaging and interactive way.

Without the personal connection of an interpretive guide, it may be difficult to impart the level of emotional connection needed for visitors to assume place attachment (and therefore be inspired to take conservation action).

**Include Personal Stories.** One way to increase connections for visitors is to include personal stories of real people from the place being visited in the non-personal guide. For a whale ecology tour, those who have the most intimate relationships with whales, that is, the researchers or interpreters who are out on the water day after day, need to share their stories of encounters with whales and their world (Russell, 2002). These stories can be narrated onto audio clips and added to apps, websites, or fixed stations. Photographs and videos can be added to further the connection between visitors and a place or species.

**Include Reflective Pauses and Ask Questions.** The theory of transformative learning requires a great deal of self-reflection in order to bring about new thought patterns and ways of understanding. Within the guide and especially at the end of each topic section, ask thought-provoking, open-ended questions and give time for participants to wonder and reflect.

**Use Many Types of Interpretation.** Another way to adapt non-personal guides to the different interests and motivations of visitors is to use as many forms of interpretation as possible, with options included but not limited to the following:

1. **Provide audio with written aid**, if possible
2. **Deliver short sections of audio information, divided by themes**
3. **Provide the ability to skip forward or back, or search by theme**
4. **Provide a summary of each topic** for people that skim-read
5. **Add images and text** to increase accessibility
6. **Add illustrations/ maps** of the area with driving directions and points of interest along the way.
7. **Include keywords** in the native language, such as:
  - a. Ballena, panga, isla, mar, bahía, pescador, tiburón, etc.
  - b. Names of cactus, mountain ranges, proper place names written and spoken in Spanish with English translation in parentheses
8. **Use physical specimens** before and during the tour to increase real-world impact for visitors. Whale bones, photos, photo murals, and other visual aids can all help make the experience more interesting and memorable.

### ***Technological Considerations***

In a remote area with limited cell phone service, attention must be given to the best solutions for providing an interpretation that will be dependable as a resource to visitors. Things to consider include:

1. How will the guide be used when there is no cell reception?
2. Will the audio and written piece be downloadable onto a smartphone or tablet from a website?
3. Is geo-mapping a solid option for linking location prompts in an audio guide?

## **Topics**

Throughout the non-personal guide, information will include some specifics and many generalizations about the culture and ecology of Baja California Sur, Mexico. Overall, the following topics will be covered within the umbrella of two main themes of abundance and scarcity, with information about people and culture bridging the two opposing elements:

### ***Scarcity***

The idea of scarcity is a big theme in a desert environment that is also surrounded by salt water. The lack of freshwater creates a lifestyle and ecology that are extremely dependent on water conservation. Tourists and outside visitors may not be aware that many of the local resources are divested to focus on the tourism economy, leaving the local population with an even larger deficit. Specific topics within this theme include:

#### **1. Desert habitat and biodiversity**

- a. Cactuses, plant life and animal life, mountain ranges, history (natural and biological)
- b. Freshwater conservation practices, regulations, and the effect of the tourism industry

#### **2. People and culture**

### *Abundance*

This area also speaks to a rich abundance of many natural resources in and around the Baja California peninsula. The Pacific Ocean and Sea of Cortez are teeming with life, due in tandem with local conservation efforts and the coastal upwelling caused by multiple deep water currents nearby.

#### **1. Whales, ocean habitat & coastal upwelling, aquatic biodiversity**

- a. Mangroves and seagrasses
- b. How whales have rebounded from near extinction
- c. Government regulations and protection of waters, responsible ecotourism

#### **2. People and culture**

### *Timing*

Data from the focus group provides clarity on which topics will work best in each section of the journey. Understanding visitor's curiosities and wondering when they will likely be thinking about specific topics can heighten the impact of the guide. Findings from the focus group lead to the following recommendations:

#### **1. Journey from La Paz to Puerto Chale:**

- a. Details about population size, local culture, and lifestyle
- b. Desert ecology, geology, and climate
- c. Whale migration, biology, and characteristics



## 2. Journey from Puerto Chale to La Paz:

- a. Information about advocacy and ways to take action to protect the whales
- b. Culture of local people
- c. Coastal and lagoon ecology, currents, mangroves, and seagrasses



Figure 5: Dove of Peace Monument, La Paz, Mexico.  
Source: globetrotterinawheelchair.com



Figure 6: Puerto Chale, Mexico. Source: Choya Tours, via Google Maps.

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## APPENDIX A

### Survey Results from Focus Group Google Form

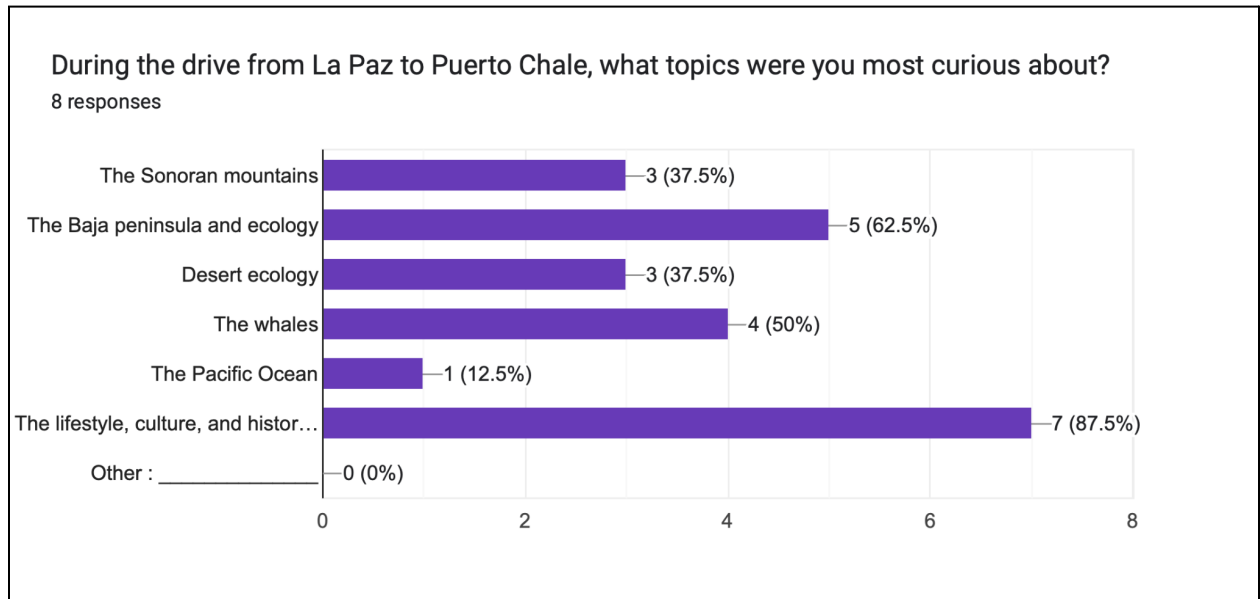


Figure 7. Survey Question One.

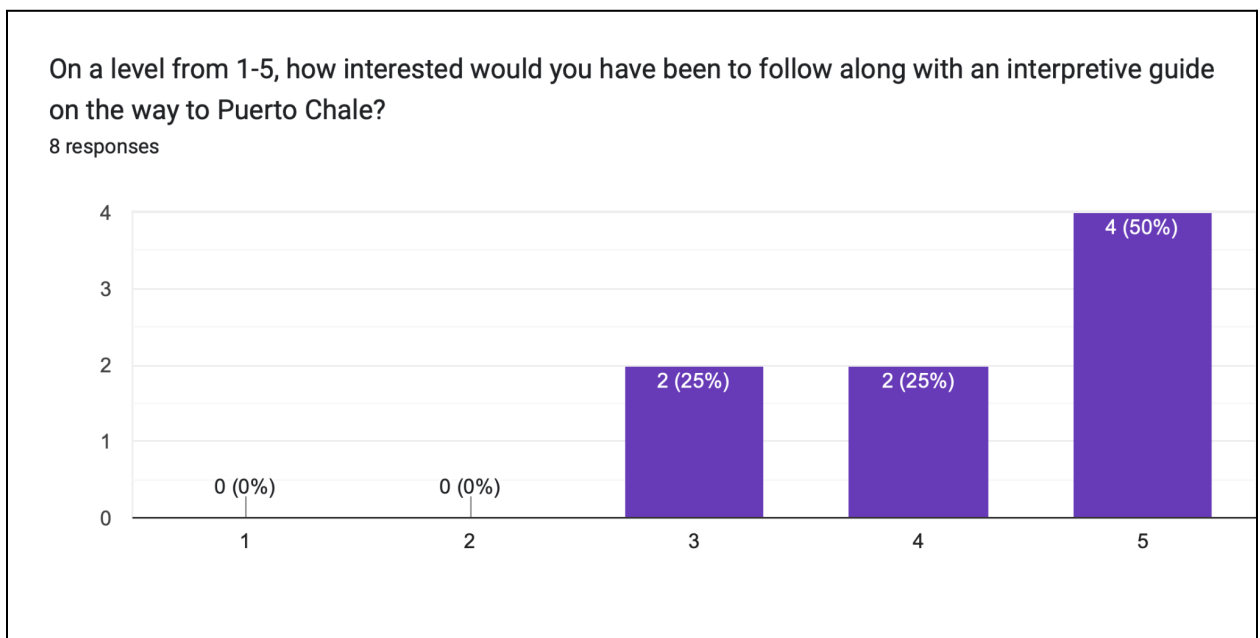


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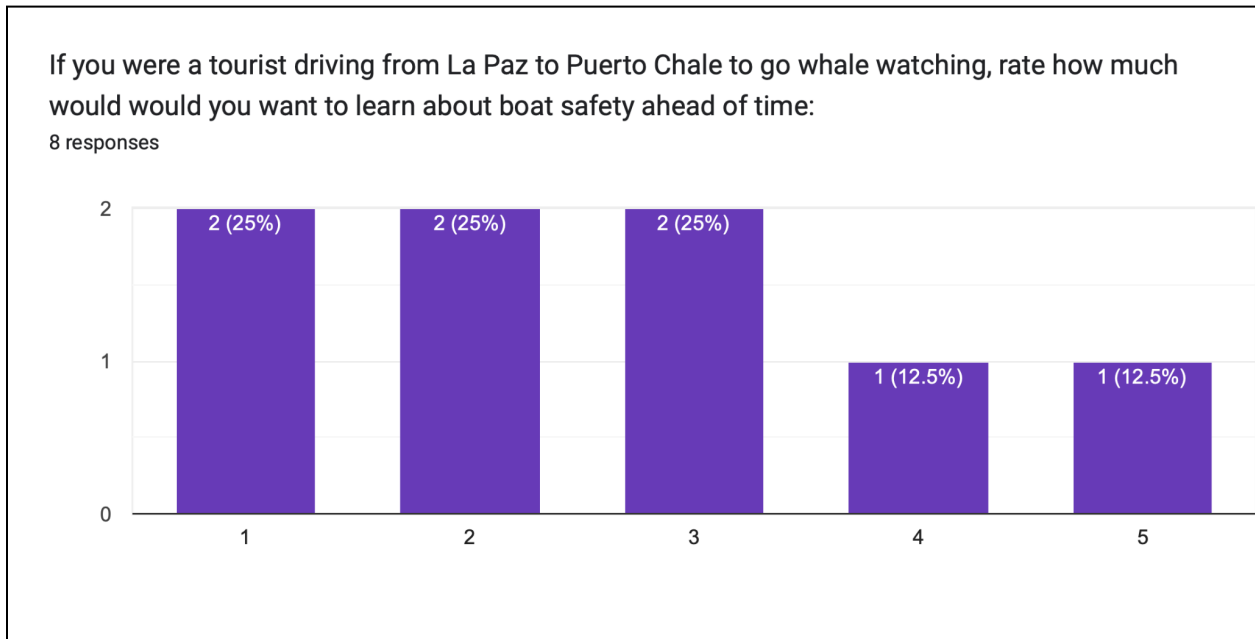


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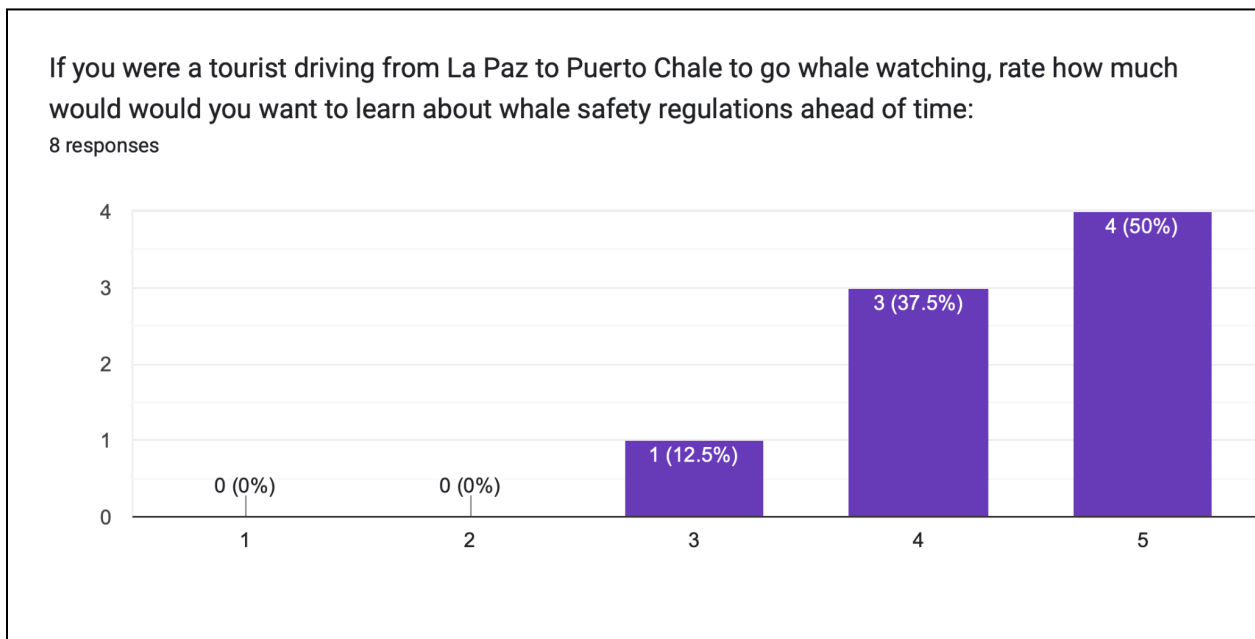


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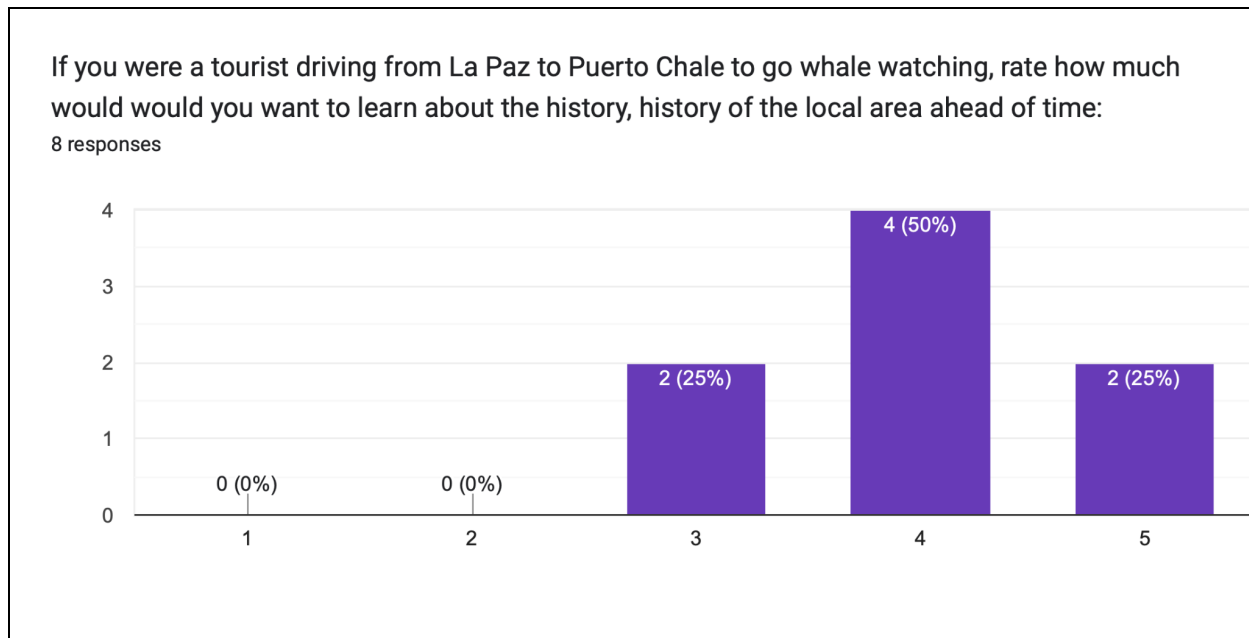


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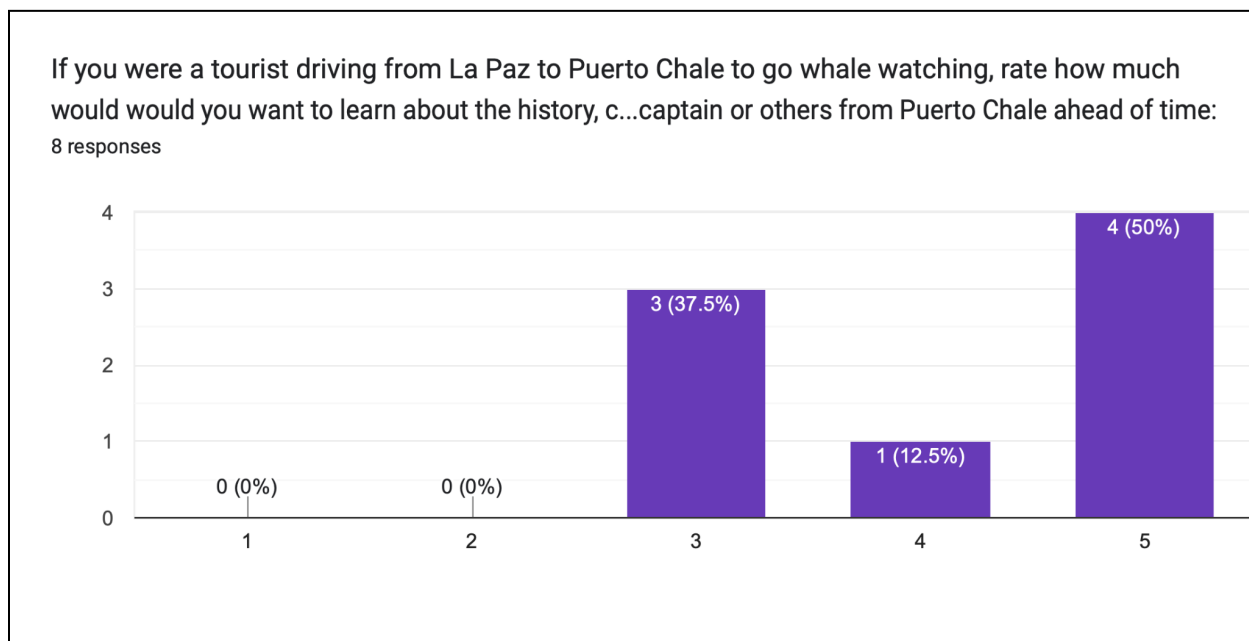


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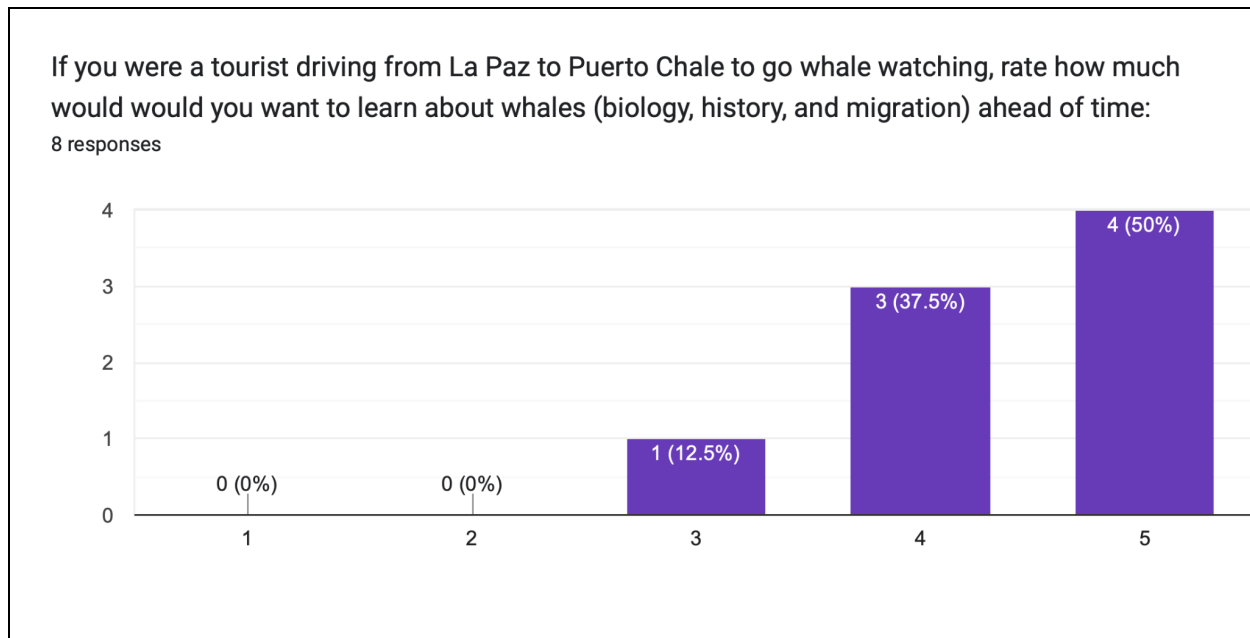


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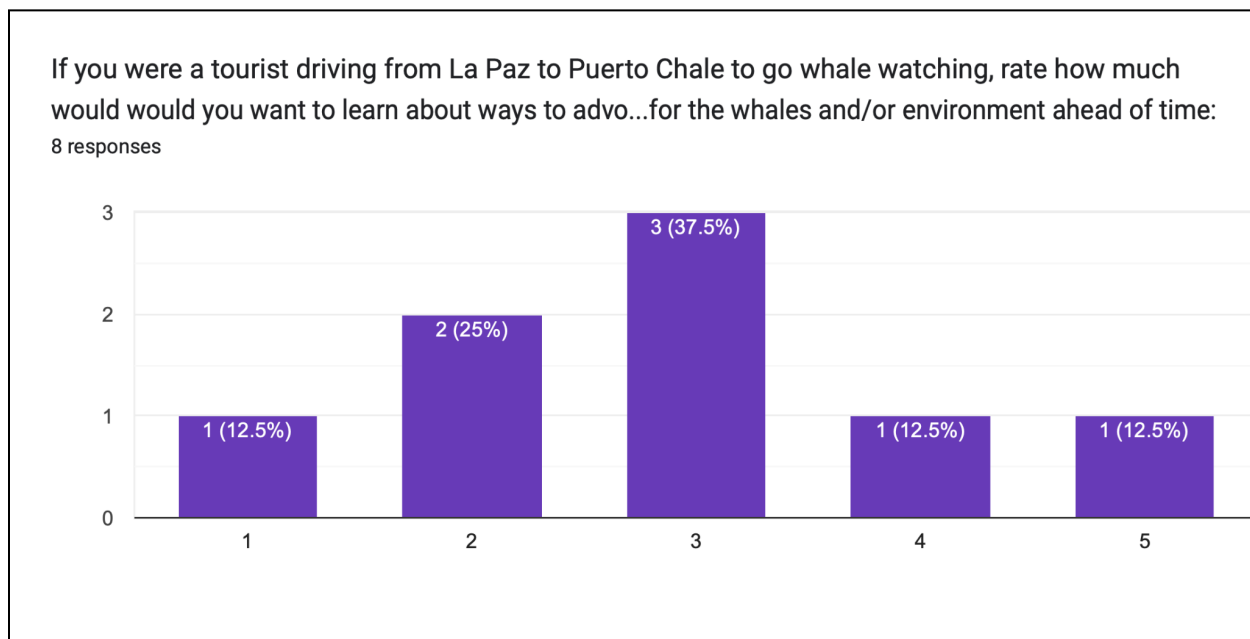


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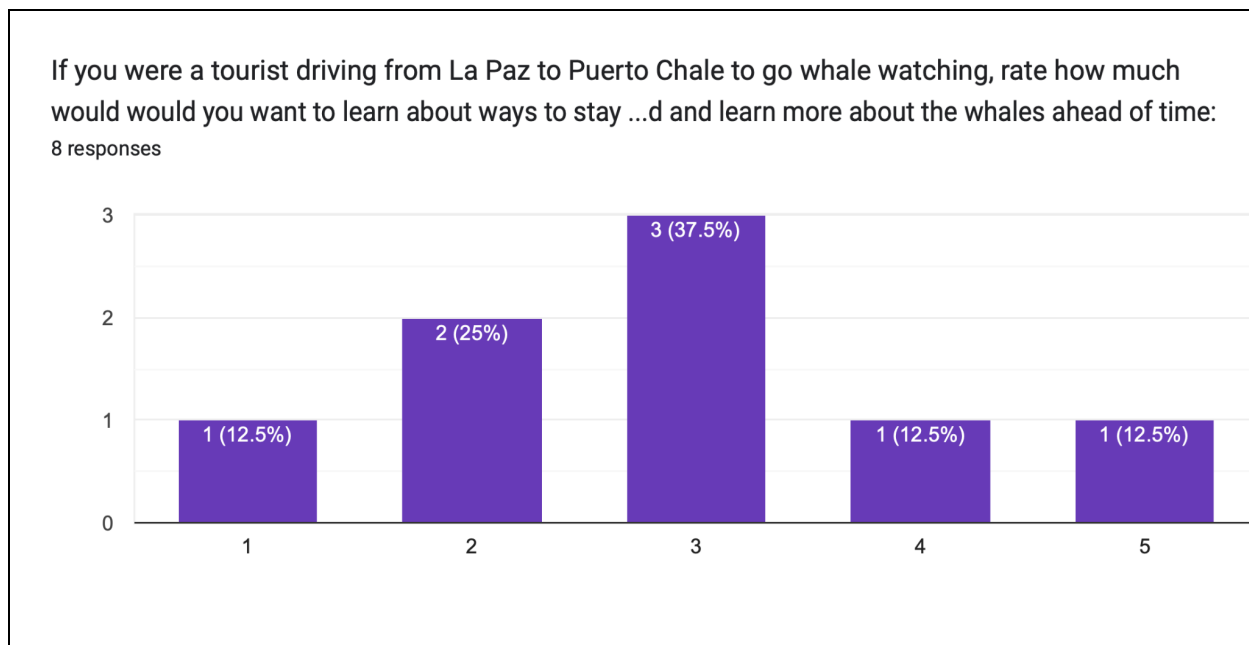


Figure 15. Survey Question Nine.

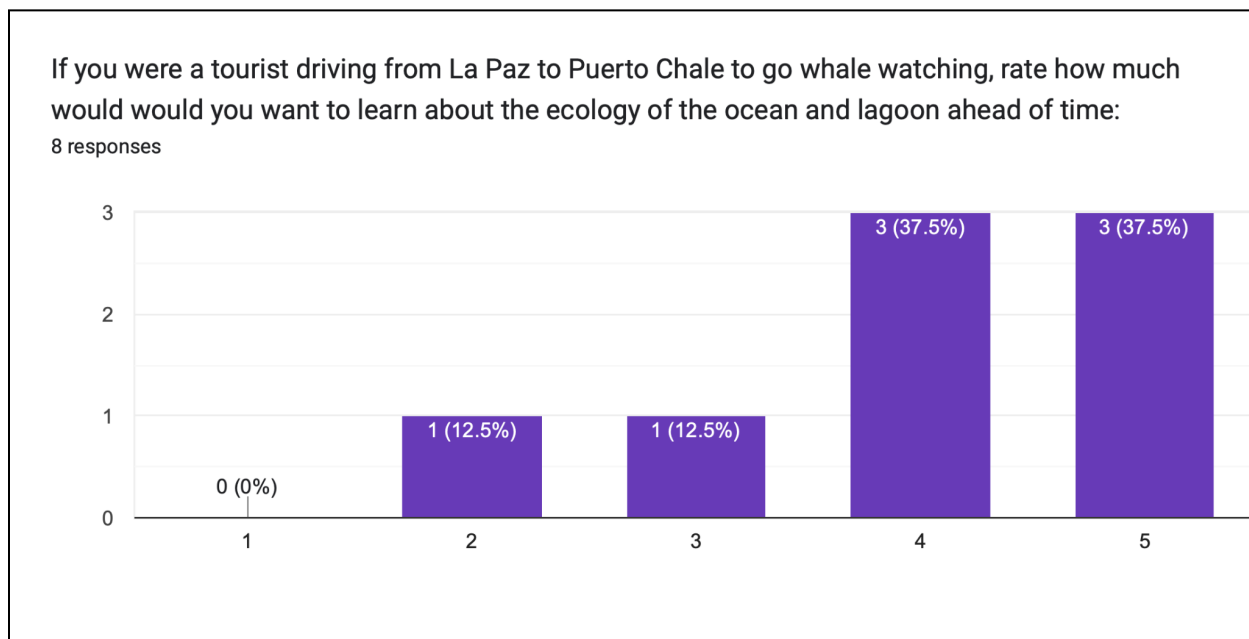


Figure 16. Survey Question Ten.



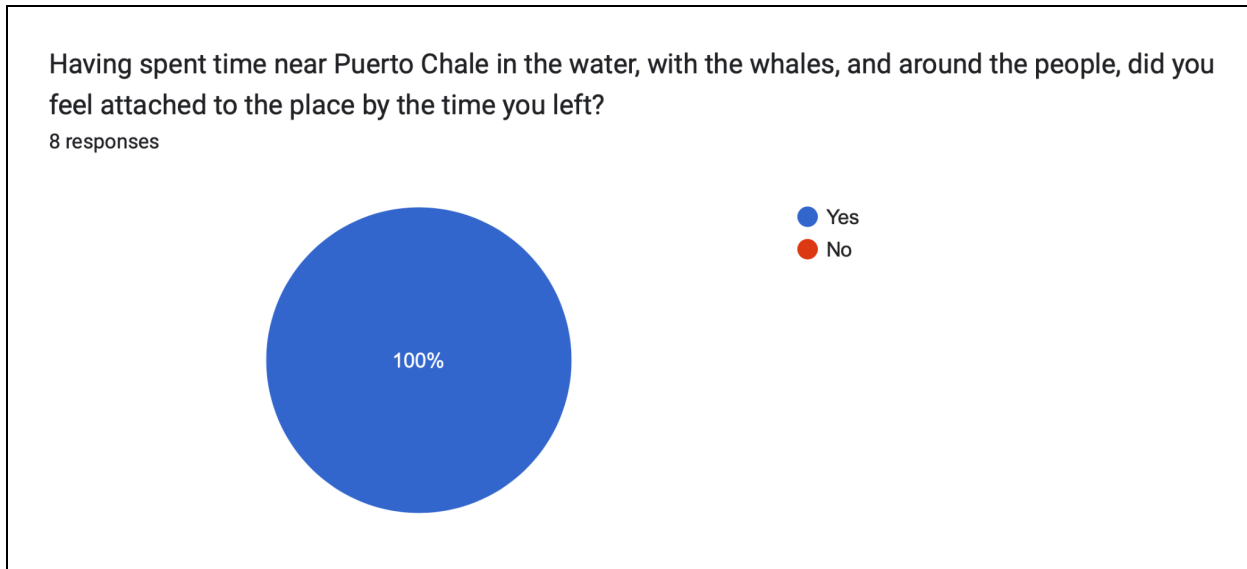


Figure 17. Survey Question Eleven.

<b>If you answered yes to the previous question, how much did your concern or attachment grow?</b>
-
I arrived with none; after the 5 days there, I didn't want to leave. I still want to go back! Work with EPI and/or ecomigrations and help them spread their knowledge
There was a connection, but it could have been stronger with more knowledge of the aforementioned. The attachment grew each day as the connection became more solidified.
From start to finish, I had no idea what to expect by the end, it's now one of my favorite places with the most special memories.
My concern grew from something present but abstract into concern rooted in specific data and first-hand experiences.
Significantly
Greatly.

Figure 18. Survey Question Twelve.

<b>What made you feel a sense of attachment? Describe the “aha” moment or experience that made you care about that place/the people/the whales.</b>
Exploring all parts of the ecosystem
The wonder/beauty of the pristine/wild and *undeveloped* land/island
Unsure of an AHA moment, but it was as I learned more from EPI and Eco Migrations and SAW the whales.
The love from all people present towards the environment and the whales, the passion from the research staff and the beauty that we were surrounded in for the time we camped.
Truly from the moment I stepped off of the plane and saw the mountains I was overwhelmed and fascinated by the landscape. It was the magic of the land and ecosystems that drew me in.
Livelihood and importance of eco tourism and understanding how we can each do our part. Also, meeting some of the local people and how they rely on the land and sea.
Seeing and experiencing in person is so different from hearing about the whales or the issues they encounter.

Figure 19. Survey Question Thirteen.

<b>What would you want tourists to know about the area, the whales, and the people?</b>
Microplastics
That they/it may seem very different from us, but really they are the same and want the same things as most of us: to protect and care for nature
Before and after history. Before irresponsible whale watching, before climate change, before pollution, before huge cargo ships; what was it like vs now. Also, how to support responsible whale watching and ecotourism going forward.
The town's effort in the whale research!
There is so much knowledge, understanding, and emotional engagement to be gained by interacting in earnest with the environment and its inhabitants. Don't shy away from it, embrace it.
The importance of understanding migration, why eco tourism is important and how climate change is affecting all aspects.
The whales are beautiful and they, along with the land and people, are to be respected.

Figure 20. Survey Question Fourteen.

<b>During your trip, was there anything you didn't learn that you wished to know?</b>
-
History of the culture/people/place
Bits and pieces about the land and history along the drive. What's the population? What's the economy in the area? What's that huge cactus?! :D
Doing acoustic samplings would have been cool.
I learned so much!
N/A

Figure 21. Survey Question Fifteen.

<b>Is there anything else you want to share that will help to create an interpretive guide in this area of Mexico?</b>
-
Don't forget the kids ;)
I rated '3' for the advocacy and connection questions only because I think it would be more impactful to receive that at the end of the trip once a personal investment is made.
Areas to pause and discuss amongst the group while driving would be cool. Giving time to just listen but also time to engage during the drive.
Open yourself up to the experience, take the time to appreciate the beauty of nature, and harness the humility that comes with discussing climate and environmental issues.
N/A

Figure 22. Survey Question Sixteen.

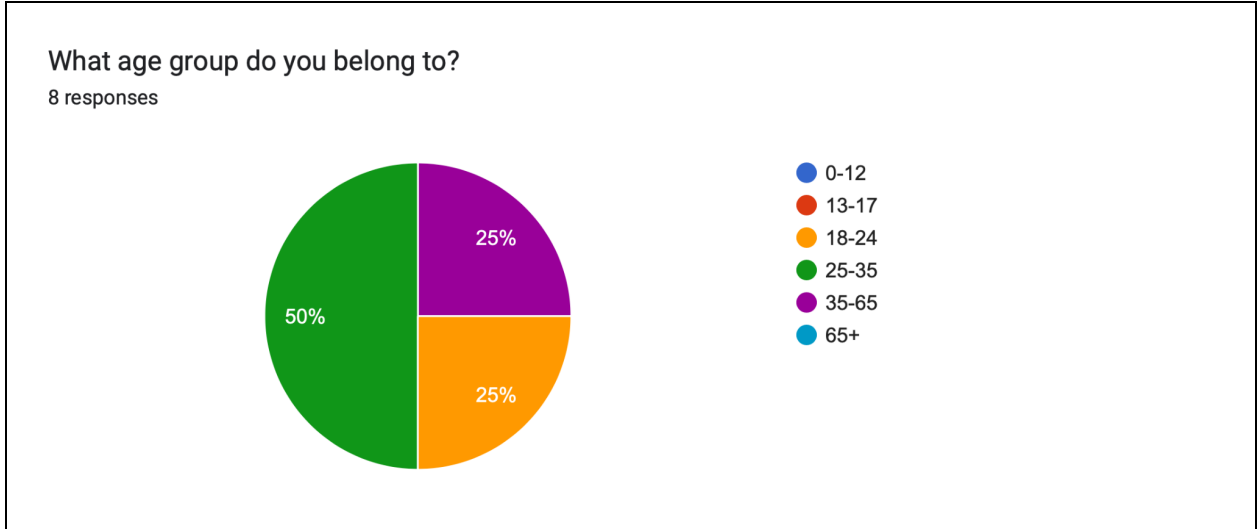


Figure 23. Survey Question Seventeen.

## APPENDIX B

### Ethical Considerations

This capstone project was created with the following ethical considerations in mind, with the purpose of reinforcing the need to create interpretive guides using the plan with the same considerations:

#### 1. Physical

- a. No work should be done in conflict with the best interest, health, and safety of whales and their biome.
- b. All practices should follow local and federal regulations for boat safety in accordance with personal safety and whale safety.
- c. All practices should respect and enforce the carrying capacity of local waterways, based on weather conditions of the sea and wildlife present.

#### 2. Cultural

- a. This work and any interpretive guides created in accordance with it should emphasize, dignify, and respect the wisdom, culture, and historic knowledge of the local population.
- b. Local names of plants, animals, places, landforms, etc. should be used at all times throughout the interpretive guide. Terms should be spoken and/or written in Spanish, with scientific or English translation provided afterward, in parentheses when written.
- c. The history and stories of local people should be used with a high level of respect to impart understanding to visitors and to help them see their commonalities.

- d. The economic health of the area should also be prioritized. Local ownership and labor should be developed fully before any outside investment is considered.
3. Environmental
- a. The ecological health of the area should be kept in the highest of priorities when considering development. The lowest ecological impacts should be used, especially around the use of fossil fuel-derived products, plastics, disposal, and single-use packaging.
  - b. Discuss opposing elements of abundance and scarcity of bodies of water and land.