

Maryland Waterways & Recreation

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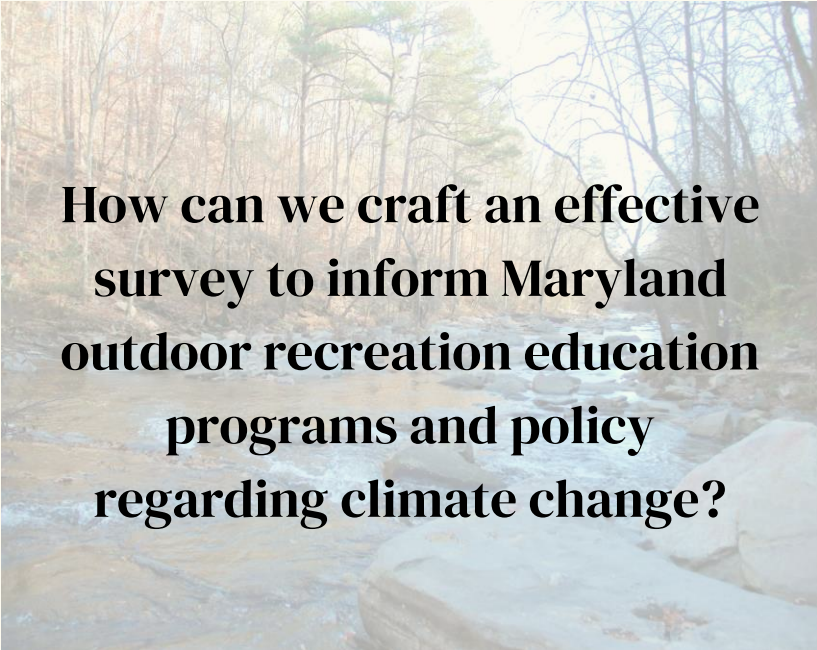
Recommendations

Client Issue

**Maryland Department of Natural Resources
has...**

An increase in climate change and resilience related work	
Funding and resources to create new park programs	
An idea of what park goers think and want	
A method of conducting survey research	

Research Question & Plan



How can we craft an effective survey to inform Maryland outdoor recreation education programs and policy regarding climate change?

1) Park selection

2) Interviews with park managers

3) Speak with survey experts

4) Develop and pre-test survey

5) Pilot test survey at 3 MD parks

Methodology

1. Conducted literature review

- DNR waterways/parks and programs
- Crafting an effective survey

2. Selected pilot test locations

- Lake Artemesia (4/21)
- Wheaton Regional Park (4/21)
- Carroll Creek Linear Park (4/29)

3. Interviewed managers of pilot-location parks

- Climate mitigation efforts and other background

4. Developed survey

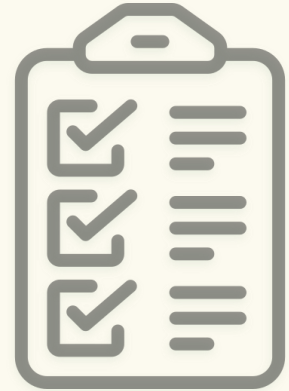
- Consulted survey experts
- Pre-tested survey before finalizing draft
- Developed survey protocol

5. Pilot-tested survey

- Stationed for 2 hrs at each park
- Collected data to consider full-scale implementation
- Used data and observations to establish recommendations

Best Practices for Survey Design

- Have a clearly defined research question
- Pretesting is necessary
- No double-barrelled questions
- Use simple and neutral language
- Avoid leading or assumptive questions
- Use the rule of four
- Be aware of the question order
- Consider the delivery method and presentation of the questionnaire
- Always be polite



Research Takeaways

Challenges

- Narrowing the scope
- Survey writing process
- Time constraints

Findings

- Important to consider survey location and setting
 - Activities at the park
 - Open vs. streamlined spaces
 - Language barriers
- Incentivizing with snacks was a useful recruiting tool
- Support from participants regarding the survey
- Participants asked for clarification on certain questions



*Photos at Lake Artemesia by Catherine Madsen from PALS



Hello! We are a group of undergraduate public policy students at the University of Maryland. We are working with the Maryland Department of Natural Resources to collect data about park recreation and climate change. All information collected from this survey is confidential and anonymous. Your participation in this survey is voluntary. You may elect to stop your participation at any time. This survey will take around 5 minutes. Please complete the questions to the best of your ability. When you are done, put the survey in the basket on the table. Thank you for your time and input!

Q1) How did you get to the park today?

- Walk A bike, scooter, or skateboard A car Public transportation (such as a bus or train)

Q2) How long did it take you to get to the park today?

- Under 15 minutes 16 to 30 minutes 31 to 45 minutes
 46 to 59 minutes 1 hour to 2 hours More than 2 hours

Q3) Which of the following activities do you plan to do while you are here today? (please choose all that apply)

- Hiking or walking Working out Fishing I came without a plan
 Riding bikes, scooters, or skateboards Boating, canoeing, or kayaking Picnicking Other (Specify here):
 Playing ball or frisbee Swimming Using a playground

Q4) When you come to this park, how does it make you feel?

- Excited Happy Empowered Proud
 Frustrated Helpless Sad Other (Specify here):

Q5) Where do you get information about outdoor recreation in Maryland?

- Recreational website Social media Other (Specify here):
 Government website I have never looked up information about outdoor recreation

Q6) Do you plan your park visits around the weather, like the temperature or rain?

- Yes No

Q7) Have severe weather events, like extreme heat, flooding, or major storms impacted your trips to Maryland parks?

- Frequently Sometimes Rarely Never I'm not sure

Q8) In your experience, have you noticed this park being affected by any of the following?

	Yes	No	Not sure
Warming temperatures	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Flooding	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Earlier plant bloom cycles	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q9) How much would you say you know about climate change?

- A lot A fair amount A little bit Not much at all No opinion

Q10) In your opinion, how much of a problem is climate change?

- Not at all Not too serious Somewhat serious Very serious Don't know / not sure

Q11) How much do you think human activity, such as the burning of fossil fuels, contributes to climate change?

- Not at all Not too much Some A great deal Don't know/not sure

Q12) Do you think climate change will pose a serious threat to the community in your lifetime?

- Yes No

Q13) When you hear about climate change, how does it generally make you feel?

- Curious Anxious Powerless No feeling/
 Optimistic Empowered Angry indifferent

Q14) How confident are you in the Maryland State government's ability to combat climate change?

- Completely confident Very confident Quite confident A little confident Not at all confident

Q15) Are you interested in learning more about climate change?

- Yes No

Q16) Would you be interested in participating in any of the following activities in the parks?

	Yes	No
Environmental educational programs	<input type="radio"/>	<input type="radio"/>
Climate change educational programs	<input type="radio"/>	<input type="radio"/>
Clean ups	<input type="radio"/>	<input type="radio"/>
Volunteer opportunities	<input type="radio"/>	<input type="radio"/>
Environment-related social events	<input type="radio"/>	<input type="radio"/>

Q17) How old are you?

- Under 18 18-24 24-34 35-44
 45-54 55-64 65 or over Prefer not to answer

Q18) What is your sex?

- Male Female Non-Binary Prefer not to answer

Q19) Do you consider yourself Hispanic or Latino?

- Yes No Prefer not to answer

Q20) Which racial group best describes you? (choose all that apply)

- White Black or African American Asian
 American Indian or Alaskan Middle Eastern or North African Prefer not to answer

Recommendations

- Create copies of the questionnaire in multiple languages
- Administer the questionnaire with consideration for the setting and activities at each park
 - location
 - mobility
- Revise certain parts of the survey
- Use a sign and a verbal survey pitch that is relevant to the survey
- Evaluate the effectiveness of types of incentives on park patrons
- Provide survey administration training to surveyors
- Further research representative sampling



Thank you!

Questions?