Considerations in Social Science Inquiry



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Multistate Conservation Grant F23AP00502

MSCG Project Intent

- Not to replicate or create conservation social scientists in state agencies
- Provide basic information to increase awareness of and on the acquisition and appropriate use of conservation social science in agency decision making
- For the purposes of these modules, we'll use the more modern and broader terminology of conservation social sciences rather than human dimensions of wildlife management
- Our use of the term wildlife includes fish, birds, insects, reptiles, etc.
- WMI deeply appreciates the contributions of Dr. Daniel J. Decker and Dr. Lou Cornicelli to this project

Purpose of Social Science Research

• Exploration

- Develop understanding of an issue
- Test feasibility of methodology for future study
- Description
 - Measure and report characteristics of a population
 - Describe what, when, where and how
- Explanation
 - Discover and report on issue
 - Answer questions
 - Answer "why"

Key Design Considerations

- One size does not fit all
- Apply standard rigors of science
- Consider stakeholder involvement in development
- Consider both process and outcomes
- Wildlife manager needs to fully partner with social scientist researcher to design inquiry that provides results to inform decision
- Design to minimize errors (e.g., sampling, coverage, non-response, measurement)

Research Design Process

- Conceptualization
- Choice of research method (method aligns with research question)
- Operationalization
- Target audience sampling
- Data processing
- Analysis
- Development of recommendation for decision making
- Application
- Evaluation of outcomes

Planning a Social Science Inquiry

- Work with a trained social scientist
 - In-house
 - Academic
 - For-profit organization
- Be honest about length of time and cost of social science inquiries
- Take care about communicating intent and results of inquiry don't overstep scientific bounds of type of inquiry
- Be very clear about the information you want to gather
 - What decision will this information inform?
 - What is needed to know or just nice to know?
- Consider who else should be involved in inquiry planning effort
- Consider who is most appropriate to conduct the inquiry (e.g., in-house or external)
- Understand what messages a social science inquiry is sending
 - Who is included? Who is not?
 - What expectorations are being implied?

Planning a Social Science Inquiry – Why?

- Do we really need a study?
 - No, if:
 - Used as a stalling tactic
 - Will appease an upset stakeholder group
 - Results won't matter in decision making
 - Yes, if:
 - Need more information for decision making
 - Existing data are old
 - Concerns about existing data

Planning a Social Science Inquiry – What?

- What information already exists?
 - Agency history and experiences
 - Literature review
 - Contact other states/countries
 - Research about a similar situation
- What type of information needed?
 - What is essential to the decision
 - What is useful to know, but might provide context
 - What is nice to know, but has little bearing on decision
- What questions lead to answers about your objective?
- What level of precision is needed? implications for sampling size, stratification, etc.

Planning a Social Science Inquiry – What?

- Is this a one-off or initial inquiry? (e.g., opinion about an emerging issue)
- Is this an occasional inquiry? (e.g., opinion about non-periodic events)
- Is this longitudinal? (e.g., opinion about regular, periodic events)
- Pay attention to sample size, sample panel selection and statistical approaches
- On-going need for longitudinal data
 - Informs possible changes in management actions over time
 - Provides reactions to outcomes of implemented actions that may change over time
 - Detect trends in participation or attitudinal opinions about management actions

Planning a Social Science Inquiry – How?

- Is the cost of the inquiry worth the benefits to inform a decision?
- Who will pay for the inquiry?
- Who will receive the results of the inquiry?
- How might the inquiry build unrealistic expectations about potential resulting management actions?
 - Considerations/limitations
 - Biological
 - Political
 - Fiscal

Planning a Social Science Inquiry – When?

- It there enough time to do thoughtful, thorough job?
 - Decision-makers often underestimate the time and cost of social science inquiry information gathering and analysis
- Is this the "right time" to conduct this inquiry?
 - Consider socio-political and ecological contexts, as well as fiscal cycles to pay for it

Planning a Social Science Inquiry – Who?

- Avoid scenarios that could be construed as "we checked the box"
- Who needs to be involved and how?
 - Within management organization (support from leadership, staff support, information users)
 - From other organizations (stakeholder groups, other agencies)
- Who should conduct the inquiry?
 - Consider trust issues related to agency, universities, and independent survey firms

Planning a Social Science Inquiry – Questions

- What decision will the inquiry inform? Is it controversial? Who will make the decision?
- What information is needed to inform the decision?
- Who will use the information? How might the information be misused?
- Is there enough time to complete the inquiry (what is the deadline)?
- Is this the appropriate time to conduct the inquiry?
- Should there be an advisory team? Internal, external or both?
- Who and how will the questions (internal and external) about the inquiry be handled?
- Have other relevant studies been completed?
- Is it reasonable to expect participants to provide the information you want?

Planning a Social Science Inquiry – Questions

- What level of precision and confidence is needed?
- Is this a one-off inquiry or longitudinal inquiry?
- Develop study objectives before drafting inquiry questions
- How will non-response bias be assessed?
- How will results be presented and distributed and who gets credit?
- Who will conduct the study? Who "owns" the data? What biases might they have? Reputation?
- How will participants be selected?
- Is the research method fitting the question? Or is it fitting into the researchers' area of expertise or contributing to their larger body of work (e.g., compare data across organizations) or repurposing a previous study?

Quantitative vs. Qualitative Inquiry

Qualitative inquiry is primarily exploratory research to understand underlying reasons, opinions, and motivations. It provides insights into the problem or helps develop ideas or hypotheses for potential quantitative research.

Quantitative inquiry focuses on measuring facts, beliefs, attitudes and behaviors. It is good at quantifying distribution of characteristics in a large population using mostly closed end questions.

Quantitative vs. Qualitative Inquiry

Quantitative

- Experiments
- Systematic observation
- Uses statistical, mathematical or computational techniques
- Data is generated by surveys
- Analysis of existing quantitative data
- Quantitative content analysis
- Have control over treatments

Qualitative

- Asks broad questions
- In-depth Interviews
- Focus groups
- Participant observation
- Qualitative content analysis
- Case studies
- Looks for themes and patterns
- Can be iterative as more is learned

Types of Social Science Inquiries

• Face-to-face

• Telephone

• Mail

E-mail and Web-based

• Focus Groups

Face to Face

Strengths

- Can be lengthy, include complex questions/subjects
- High item response because interviewer manages survey
- Allows for field observation
- Can reach people not available by phone or mail

Weaknesses

- Expensive
- Need trained interviewers
- Need time to reach respondents and complete surveys
- Potential for interviewer bias
- Social desirability bias acceptable vs. truthful

Telephone Surveys

• Strengths

- Can be done quickly
- Conducive to branching questions
- More control over who completes the survey (compared to mail)
- Can reach geographically dispersed group

• Weaknesses

- Questions must be brief and easy to understand
- Overall survey must be short
- Need trained interviewers willing to work nights/weekends
- Some potential for interviewer bias
- Some potential for social desirability bias
- Growing problems with reaching representative samples (caller ID, cell phones, etc.)

Mail Surveys

Strengths

- Can include complex questions and subjects
- Can reach geographically dispersed group
- Allows respondents to complete at their convenience (better recall)
- Low potential for socialdesirability bias

Weaknesses

- Limits use of branching questions
- Nonresponse bias
- Requires time for repeated mailings
- No opportunity to explain questions
- No certainty about who completed the survey
- No control over the order in which questions are answered

Email and Web-based Surveys

Strengths

- Can be done quickly
- Limited social desirability bias
- Can reach geographically dispersed group
- Allows respondents to complete at their convenience (better recall)

Weaknesses

- Coverage (convenience sample)
- Nonresponse bias
- No opportunity to explain questions
- No certainty about who completed the survey
- No good database of email addresses

Focus Groups

Strengths

- Can be assembled quickly
- Inexpensive
- Questions and misunderstandings can be clarified
- Offer opportunities for deliberation of points
- Easy to run
- Can work with people who don't know each other
- Participants have equal status
- Provides a record of results

• Weaknesses

- Cannot be used to generalize to a population
- Can be misused and 'data' made to appear more conclusive than they are
- Requires a skilled moderator
- May imply a higher level of agreement than was actually reached
- Is properly used only to generate or flesh out ideas



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