



PART 2



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PSYCHOMETRIC PROPERTIES OF SURVEY

Visiting Medical Education Scholar Webinar | Faculty of Medicine, Mahidol University



EXPLORE

PSYCHOMETRIC CONCEPT

Explore the concept of psychometric

DISCUSS

PSYCHOMETRIC PROPERTIES

Discuss psychometric properties of survey

EXAMINE

A SIX-STEP APPROACH

Examine the SIX-STEP APPROACH to ensure psychometric properties of survey



EXPLORE

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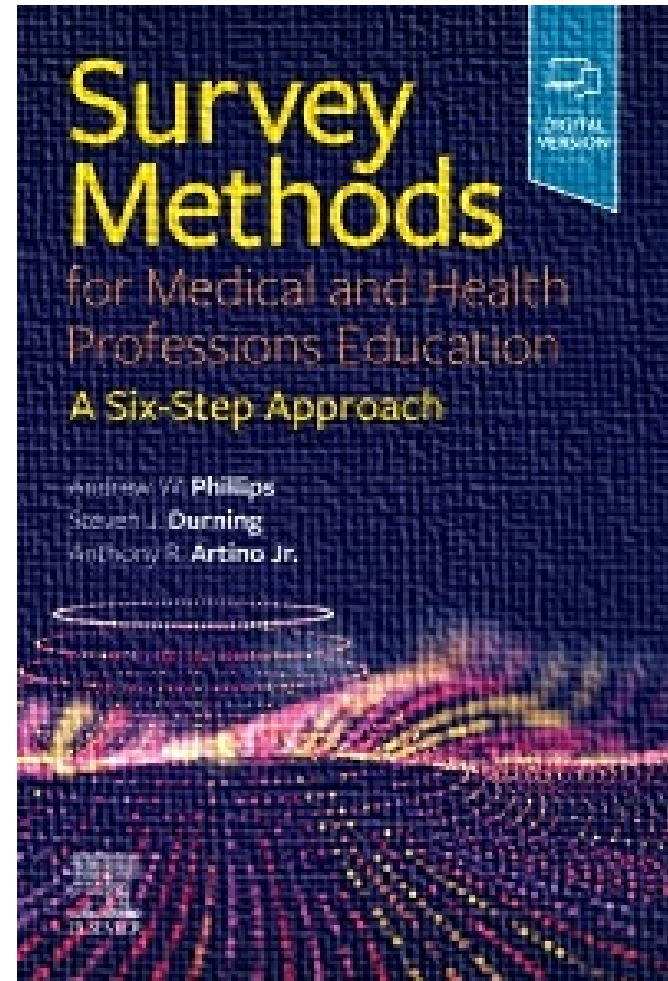
EXAMINE

A SIX-STEP APPROACH

Examine the SIX-STEP APPROACH to ensure psychometric properties of survey

“Phillips et al recently reported that 52% of all original research articles in three high impact HPE journals included a survey.”

(Phillips et al., 2017; Artino et al., 2018)



Six Steps for Survey Research



Step 1: Needs Assessment

Step 2: Survey Construction

Step 3: Establishing Evidence

Step 4: Survey Delivery

Step 5: Data Analysis

Step 6: Reporting Guidelines

A practical, six-step approach to effective survey design, delivery, and analysis, provides a real-world framework for successful research and evaluation using surveys.

Six Steps for Survey Research



Step1: Needs Assessment

- Definition
- When and Why to Use a Survey
- Draft the Survey Objective(s)
- Gather Supporting Information
 - Assess the Literature
 - Assess the Stakeholders
- Choosing the Delivery Method
- Data Analyses

Before constructing a survey, **a needs assessment is conducted to identify the purpose, objectives, and target audience of the survey.** Understanding the information needs and goals is essential for designing a relevant and effective survey.

Six Steps for Survey Research



Step1: Needs Assessment

- **Definition**
- When and Why to Use a Survey
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- Data Analyses

It is the process of **identifying and evaluating gaps or needs in a particular situation or setting**. In the context of survey research, a needs assessment helps researchers understand the information requirements and objectives before constructing a survey.

Six Steps for Survey Research



Step1: Needs Assessment

- **Definition**
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- Data Analyses

- Survey method can be defined as **the collection of information from a sample of individuals through their responses to questions.**

- **A survey** can be broadly defined as **any instrument composed of prespecified questions or items** designed to sample and produce statistical information about some aspect(s) of a population.

- **A questionnaire** is a **self-administered survey**, regardless of medium.

Six Steps for Survey Research



Step 1: Needs Assessment

- Definition
- **When and Why to Use a Survey**
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- **When:** Surveys are appropriate when researchers seek to **collect data from a large number of participants** to understand attitudes, opinions, behaviors, or characteristics.

- **Why:** Surveys are **useful for obtaining quantitative and qualitative data efficiently**, especially when seeking to generalize findings to a larger population.

**Student Experience
and Performance**

**Stakeholder Engagement
and Involvement**

**THE PURPOSES
OF SURVEYS**

**Educator
Evaluation and
Development**

**Program Assessment
and Improvement**

**Attitudes, Beliefs,
and Perceptions**



Six Steps for Survey Research



Step1: Needs Assessment

- Definition
- When and Why to Use a Survey
- **Draft the Survey Objective(s)**
- Gather Supporting Information
 - Assess the Literature
 - Assess the Stakeholders
- Choosing the Delivery Method
- Data Analyses

Clearly define the goals and objectives of the survey.

This involves specifying what information the survey aims to gather and how it will contribute to addressing the identified needs or gaps.

Six Steps for Survey Research



Step1: Needs Assessment

- Definition
- When and Why to Use a Survey
- Draft the Survey Objective(s)
- **Gather Supporting Information**
 - **Assess the Literature**
 - **Assess the Stakeholders**
- Choosing the Delivery Method
- Data Analyses

Before constructing the survey, gather supporting information to inform its design. This includes **assessing existing knowledge, understanding relevant literature, and identifying key stakeholders.**

- **Review existing literature** related to the survey topic. This helps researchers understand what is already known, identify gaps in knowledge, and refine the research questions.
- **Perform interview and focus group discussion with key stakeholders** who may have an interest in or be affected by the survey findings. **Stakeholder input can provide valuable insights** into the information needs and priorities.

Six Steps for Survey Research



Step 1: Needs Assessment

- Definition
- When and Why to Use a Survey
- Draft the Survey Objective(s)
- Gather Supporting Information
 - Assess the Literature
 - Assess the Stakeholders
- **Choosing the Delivery Method**
- Data Analyses

Select the most appropriate **method for survey delivery** based on the target audience and the nature of the research. Common delivery methods include **face-to-face interviews, telephone surveys, online surveys, or mailed questionnaires.**

Six Steps for Survey Research



Step1: Needs Assessment

- Definition
- When and Why to Use a Survey
- Draft the Survey Objective(s)
- Gather Supporting Information
 - Assess the Literature
 - Assess the Stakeholders
- Choosing the Delivery Method
- **Data Analyses**

Even in the needs assessment stage, **consider the types of analyses that might be required once the survey data is collected.** This foresight can influence the design of the survey instrument and the selection of appropriate questions.

Six Steps for Survey Research



Step 2: Survey Construction

- How Respondents Answer Survey Items
- Writing Survey Items
- Visually Displaying Items
- Testing Items
- Survey Construction Checklist

Survey construction involves **designing the questionnaire**. This includes defining the **survey's structure, selecting appropriate question types, wording questions** carefully, and ensuring the survey **aligns with the research objectives**.

Six Steps for Survey Research



Step 2: Survey Construction

- **How Respondents Answer Survey Items**
- Writing Survey Items
- Visually Displaying Items
- Testing Items
- Survey Construction Checklist

Understand the different response formats for survey items. Common types include:

- **Closed-ended Questions:** Provide pre-defined response options (e.g., multiple-choice, Likert scale).
- **Open-ended Questions:** Allow respondents to provide free-text responses.
- **Scaled Questions:** Use numerical scales to measure intensity, frequency, or agreement.

Six Steps for Survey Research



Step 2: Survey Construction

- How Respondents Answer Survey Items
- **Writing Survey Items**
- Visually Displaying Items
- Testing Items
- Survey Construction Checklist

Craft survey questions with precision, clarity, and neutrality. Key considerations include:

- **Avoid Ambiguity:** Ensure that questions are clear and unambiguous to prevent misunderstandings.
- **Use Simple Language:** Write questions in a language that is easily understandable by the target audience.
- **Avoid Leading Phrases:** Formulate questions in an unbiased manner to avoid influencing respondents.

Six Steps for Survey Research



Step 2: Survey Construction

- How Respondents Answer Survey Items
- Writing Survey Items
- **Visually Displaying Items**
- Testing Items
- Survey Construction Checklist

Pay attention to the visual presentation of survey items. Consider:

- **Formatting:** Ensure consistent formatting for a professional appearance.
- **Logical Flow:** Organize questions in a logical sequence to enhance respondent understanding.
- **White Space:** Use white space effectively to avoid overwhelming participants with dense text.

Six Steps for Survey Research



Step 2: Survey Construction

- How Respondents Answer Survey Items
- Writing Survey Items
- Visually Displaying Items
- **Testing Items**
- Survey Construction Checklist

Before finalizing the survey, conduct pre-testing or pilot testing to identify potential issues. This involves:

- **Pilot Testing:** Administering the survey to a small sample to identify problems with question wording, comprehension, or response options.
- **Feedback:** Gathering feedback from pilot participants to refine and improve the survey instrument.

Six Steps for Survey Research



Step 2: Survey Construction

- How Respondents Answer Survey Items
- Writing Survey Items
- Visually Displaying Items
- Testing Items
- **Survey Construction Checklist**

Use a survey construction checklist to ensure the quality of the instrument. The checklist may include:

- **Clarity:** Are the questions clear and easily understood?
- **Relevance:** Are all questions directly relevant to the survey objectives?
- **Consistency:** Is the language consistent throughout the survey?
- **Length:** Is the survey of an appropriate length to maintain respondent engagement?
- **Order:** Is there a logical order to the questions?
- **Response Options:** Are response options comprehensive and unbiased?
- **Piloting:** Has the survey been pre-tested or piloted for potential issues?

Do's in Questionnaire Design

1. **Define Clear Objectives:** Clearly outline research goals.
2. **Understand Target Audience:** Tailor questions to the audience.
3. **Choose Appropriate Question Types:** Select suitable question formats.
4. **Use Clear and Concise Language:** Ensure questions are easy to understand.
5. **Organize Logical Flow:** Arrange questions in a logical sequence.
6. **Pilot Test:** Conduct a pilot test to identify and address issues.
7. **Avoid Leading Questions:** Formulate questions without influencing responses.
8. **Ensure Scale Consistency:** Maintain consistent scale points and anchors.
9. **Include Screening Questions:** Filter respondents based on specific criteria.
10. **Collect Demographic Information:** Include relevant demographic questions.
11. **Obtain Informed Consent:** Clearly communicate the purpose and obtain consent.
12. **Provide Clear Instructions:** Clearly instruct respondents on how to answer.
13. **Use a Mix of Question Types:** Incorporate a variety of question formats.

Don'ts in Questionnaire Design

1. **Avoid Ambiguity:** Use precise and unambiguous language.
 2. **Don't Use Jargon:** Avoid technical terms or language that may confuse respondents.
 3. **Avoid Bias:** Formulate questions in a neutral manner to prevent bias.
 4. **Avoid Double-Barreled Questions:** Focus on one idea per question.
 5. **Don't Overwhelm with Complexity:** Gradually move from simple to complex topics.
 6. **Skip Pilot Testing:** Always test the questionnaire before widespread use.
 7. **Neglect Response Options:** Ensure response options are comprehensive and clear.
 8. **Use Vague Scales:** Clearly define and explain the meaning of scale points.
 9. **Omit Screening:** Ensure the sample meets research requirements.
 10. **Ask Sensitive Questions Early:** Save sensitive questions for later in the survey.
 11. **Compromise Privacy:** Ensure participant privacy and anonymity.
 12. **Assume Understanding:** Include instructions for each question if necessary.
 13. **Overuse Open-Ended Questions:** Balance open-ended and closed-ended questions.
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Six Steps for Survey Research



Step 3: Establishing Evidence

- Validity, Validation, and Evidence
- Validity Evidence and Validation Frameworks
- Internal Structure and Generalization
- Crafting the Arguments: Planning, Prioritizing, and Interpreting the Evidence
- Using, Modifying, and Combining Existing Instruments
- Approach to Validation
- Reporting Validation Efforts
- Approach to Validation Summary

Establishing evidence for a survey involves **assessing its psychometric properties**.

This includes:

- **Reliability**: Consistency and stability of the survey's measurement.
- **Validity**: The extent to which the survey measures what it intends to measure.
- **Construct Validity**: Ensuring the survey captures the targeted psychological construct.

Six Steps for Survey Research



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- **Validity:** The degree to which a survey instrument measures what it intends to measure. It is a key component of the reliability and accuracy of a survey.
- **Validation:** The process of accumulating evidence to support the validity of a survey instrument.
- **Evidence:** Empirical support or data that substantiates the validity of a survey.

Six Steps for Survey Research

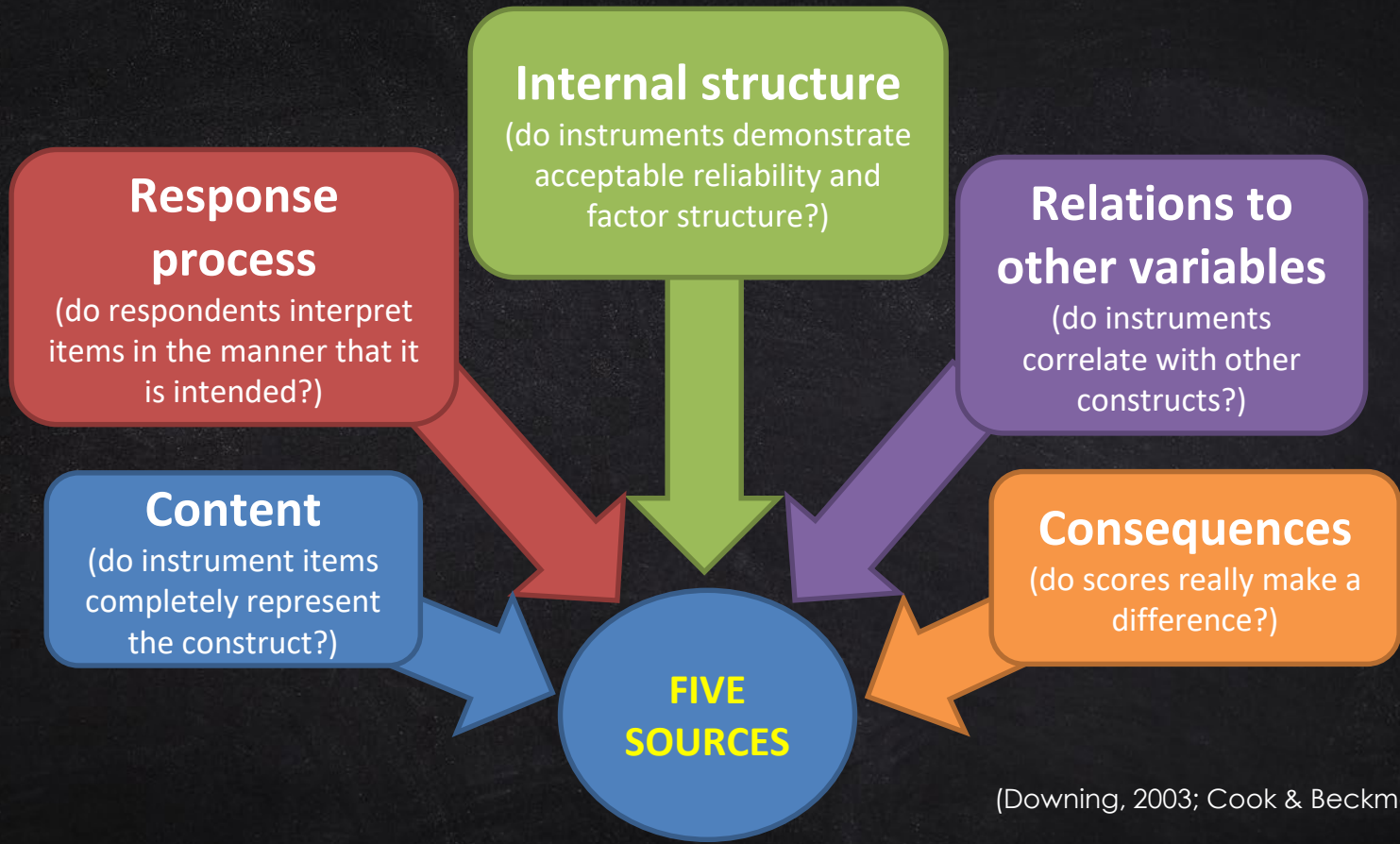


Step 3: Establishing Evidence

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•**Validity Evidence:** Information collected to support the validity of a survey. This evidence can be based on content, criterion, construct, or other types of validity.

•**Validation Frameworks:** Structured approaches or frameworks for collecting and evaluating validity evidence. Examples include content validation, response process validation, and construct validation.



(Downing, 2003; Cook & Beckman, 2006)

Evidence to support the **CONSTRUCT VALIDITY**

Six Steps for Survey Research



Step 3: Establishing Evidence

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- Approach to Validation Summary

- Assess the internal structure of the survey instrument, examining factors like:
 - **Factor Structure:** The underlying factors or dimensions in the survey.
 - **Reliability:** The consistency of measurement.
- Consider the generalization of validity evidence to broader populations or settings.

Six Steps for Survey Research



Step 3: Establishing Evidence

- Validity, Validation, and Evidence
- Validity Evidence and Validation Frameworks
- Internal Structure and Generalization
- **Crafting the Arguments: Planning, Prioritizing, and Interpreting the Evidence**
- Using, Modifying, and Combining Existing Instruments
- Approach to Validation
- Reporting Validation Efforts
- Approach to Validation Summary

- Develop a systematic plan for collecting validity evidence.
- Prioritize the types of validity evidence based on the survey's goals.
- Interpret the evidence in the context of the research objectives.

Six Steps for Survey Research



Step 3: Establishing Evidence

- Validity, Validation, and Evidence
- Validity Evidence and Validation Frameworks
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- Crafting the Arguments: Planning, Prioritizing, and Interpreting the Evidence
- **Using, Modifying, and Combining Existing Instruments**
- Approach to Validation
- Reporting Validation Efforts
- Approach to Validation Summary

- Consider using established survey instruments with existing validity evidence.
- Modify existing instruments to suit the specific needs of the study.
- Explore the possibility of combining elements from multiple instruments to create a customized survey.

Six Steps for Survey Research



Step 3: Establishing Evidence

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- Crafting the Arguments: Planning, Prioritizing, and Interpreting the Evidence
- Using, Modifying, and Combining Existing Instruments
- **Approach to Validation**
- Reporting Validation Efforts
- Approach to Validation Summary

Follow a systematic approach to validation, including:

- **Define the Construct:** Clearly articulate the psychological construct being measured.
- **Generate Domain Representation:** Identify the domain and create a comprehensive representation of the construct.
- **Generate Items:** Develop items or questions based on the construct and domain representation.
- **Assess Face and Content Validity:** Ensure the survey has face validity and covers the intended content.
- **Assess Construct Validity:** Evaluate how well the survey reflects the abstract concept or construct it is supposed to measure.
- **Assess Reliability:** Examine the internal consistency and stability of the survey.
- **Conduct Criterion-Related Validation Studies:** Assess the survey against external criteria.

Six Steps for Survey Research



Step 3: Establishing Evidence

- Validity, Validation, and Evidence
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- Crafting the Arguments: Planning, Prioritizing, and Interpreting the Evidence
- Using, Modifying, and Combining Existing Instruments
- Approach to Validation
- **Reporting Validation Efforts**
- Approach to Validation Summary

Clearly and transparently report the validation efforts in the survey research. This involves documenting the steps taken, the evidence collected, and the interpretation of findings.

Six Steps for Survey Research



Step 3: Establishing Evidence

- Validity, Validation, and Evidence
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- Crafting the Arguments: Planning, Prioritizing, and Interpreting the Evidence
- Using, Modifying, and Combining Existing Instruments
- Approach to Validation
- Reporting Validation Efforts
- **Approach to Validation Summary**

- Summarize the validation process by reviewing the above steps.
- Highlight key findings, areas of strength, and potential limitations.
- This summary aids in providing a clear and concise overview of the validation efforts.

Six Steps for Survey Research



Step 4: Survey Delivery

- Survey Medium
- Decision to Participate
- Selecting Options
- Survey Delivery Checklist

Survey delivery involves **the actual administration of the survey to participants**. This can be done through various methods, including face-to-face interviews, telephone interviews, online surveys, or mailed questionnaires. **The mode of delivery can impact response rates and data quality.**

Six Steps for Survey Research



Step 4: Survey Delivery

- **Survey Medium**
- Decision to Participate
- Selecting Options
- Survey Delivery Checklist

Choose the appropriate medium for survey delivery based on the characteristics of the target audience, research goals, and available resources. Common survey mediums include:

- **Online Surveys:** Administered through web platforms, emails, or social media.
- **Telephone Surveys:** Conducted via phone calls with interviewers.
- **Face-to-Face Surveys:** Administered in person by interviewers.
- **Mailed Questionnaires:** Distributed through postal mail.

Six Steps for Survey Research



Step 4: Survey Delivery

- Survey Medium
- **Decision to Participate**
- Selecting Options
- Survey Delivery Checklist

Understand factors influencing participants' decisions to take part in the survey. Key considerations include:

- **Clarity:** Clearly communicate the purpose and benefits of the survey.
- **Ease of Participation:** Ensure the survey is user-friendly and not overly time-consuming.
- **Incentives:** Consider offering incentives to motivate participation.

Six Steps for Survey Research



Step 4: Survey Delivery

- Survey Medium
- Decision to Participate
- **Selecting Options**
- Survey Delivery Checklist

Consider the various options for survey delivery and choose the most suitable one based on the nature of the study and the characteristics of the target population. Each option has its own advantages and challenges.

Six Steps for Survey Research



Step 4: Survey Delivery

- Survey Medium
- Decision to Participate
- Selecting Options
- **Survey Delivery Checklist**

Use a survey delivery checklist to ensure that the delivery process is well-organized and meets established standards. The checklist may include items such as:

- **Communication Plan:** Outline how participants will be informed about the survey.
- **Distribution Plan:** Detail the method and timing of survey distribution.
- **Access and Security:** Ensure that the survey platform is secure and accessible to the target audience.
- **Reminders:** Plan for sending reminders to non-respondents.
- **Support:** Provide contact information for support or clarification.

Six Steps for Survey Research



Step 5: Data Analysis

- Data First Pass
- Quantitative Analysis
- Qualitative Analysis
- Data Analysis Checklist

Once data is collected, it undergoes analysis. **Data analysis methods depend on the survey design and the nature of the data.** Descriptive statistics, inferential statistics, and other analytical techniques may be applied to interpret the findings.

Six Steps for Survey Research



Step 5: Data Analysis

- **Data First Pass**
- Quantitative Analysis
- Qualitative Analysis
- Data Analysis Checklist

•**Overview:** Conduct an initial review or "first pass" of the data to gain a general understanding of the dataset.

•**Data Cleaning:** Address any data entry errors, missing values, or inconsistencies.

•**Descriptive Statistics:** Calculate basic descriptive statistics (e.g., means, frequencies) to summarize key features of the data.

Six Steps for Survey Research



Step 5: Data Analysis

- Data First Pass
- **Quantitative Analysis**
- Qualitative Analysis
- Data Analysis Checklist

Statistical Techniques: Apply statistical methods to analyze quantitative survey data. Common techniques include:

- **Descriptive Statistics:** Summarize and describe the main features of the data.
- **Inferential Statistics:** Make inferences about the population based on a sample.
- **Correlation Analysis:** Examine relationships between variables.
- **Regression Analysis:** Explore the influence of independent variables on a dependent variable.

Six Steps for Survey Research



Step 5: Data Analysis

- Data First Pass
- Quantitative Analysis
- **Qualitative Analysis**
- Data Analysis Checklist

•**Coding and Categorization:**

Analyze open-ended survey responses through coding and categorization.

•**Thematic Analysis:** Identify and explore recurring themes or patterns in qualitative data.

•**Content Analysis:**

Systematically analyze the content of text-based data to derive meaningful insights.

Six Steps for Survey Research



Step 5: Data Analysis

- Data First Pass
- Quantitative Analysis
- Qualitative Analysis
- **Data Analysis Checklist**

Use a data analysis checklist to guide the analysis process. The checklist may include items such as:

- **Data Cleaning:** Ensure data integrity by addressing any errors or missing values.
- **Variable Transformation:** If necessary, transform variables for analysis.
- **Statistical Tests:** Select and conduct appropriate statistical tests based on research questions.
- **Interpretation:** Provide clear interpretations of statistical findings.
- **Qualitative Themes:** Identify and report key themes or patterns in qualitative data.
- **Validity Checks:** Verify the validity of the analysis by conducting relevant checks.
- **Documentation:** Document the analysis process for transparency and reproducibility.

Six Steps for Survey Research



Step 6: Reporting Guidelines

- Introduction
- Methods
- Results
- Discussion
- Appendices
- Chapter Summary
- Reporting Guidelines Checklist

Reporting guidelines involve **communicating the survey results in a clear and transparent manner.**

Six Steps for Survey Research



Step 6: Reporting Guidelines

- **Introduction**
- Methods
- Results
- Discussion
- Appendices
- Chapter Summary
- Reporting Guidelines Checklist

- **Purpose:** Clearly state the purpose of the survey and the research objectives.
- **Background:** Provide a brief overview of relevant literature and the context in which the survey was conducted.
- **Hypotheses or Research Questions:** If applicable, present the hypotheses or research questions guiding the survey.

Six Steps for Survey Research



Step 6: Reporting Guidelines

- Introduction
- **Methods**
- Results
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- Appendices
- Chapter Summary
- Reporting Guidelines Checklist

- **Survey Design:** Describe the survey design, including the sampling strategy, data collection methods, and any tools or instruments used.
- **Participants:** Provide information about the characteristics of the survey participants, including demographics.
- **Data Analysis:** Outline the data analysis methods and statistical techniques applied.
- **Ethical Considerations:** Report on ethical considerations, including informed consent, participant confidentiality, and any institutional review board approvals.

Six Steps for Survey Research



Step 6: Reporting Guidelines

- Introduction
- Methods
- **Results**
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- Appendices
- Chapter Summary
- Reporting Guidelines Checklist

- **Descriptive Statistics:** Present key descriptive statistics, such as frequencies, percentages, means, or other relevant measures.
- **Inferential Statistics:** Report the results of any inferential statistical analyses conducted.
- **Visual Representations:** Use tables, charts, and graphs to visually represent survey findings.
- **Significance Levels:** Clearly indicate the significance levels for statistical tests.

Six Steps for Survey Research



Step 6: Reporting Guidelines

- Introduction
- Methods
- Results
- **Discussion**
- Appendices
- Chapter Summary
- Reporting Guidelines Checklist

- **Interpretation:** Interpret the survey results in the context of the research objectives and relevant literature.
- **Comparison with Previous Studies:** Compare and contrast the survey findings with existing research, discussing similarities and differences.
- **Limitations:** Acknowledge any limitations of the survey and potential sources of bias.
- **Implications:** Discuss the implications of the findings for theory, practice, or future research.

Six Steps for Survey Research



Step 6: Reporting Guidelines

- Introduction
- Methods
- Results
- Discussion
- **Appendices**
- Chapter Summary
- Reporting Guidelines Checklist

- **Supplementary Material:** Include any supplementary material, such as the full survey questionnaire, additional analyses, or supporting documentation.
- **Raw Data:** Optionally, provide access to the raw survey data (ensuring participant confidentiality).

Six Steps for Survey Research



Step 6: Reporting Guidelines

- Introduction
- Methods
- Results
- Discussion
- Appendices
- **Chapter Summary**
- Reporting Guidelines Checklist

•**Summarize Key Findings:**

Provide a concise summary of the main findings of the survey.

•**Revisit Objectives:** Reiterate how the survey addressed the research objectives stated in the introduction.

Six Steps for Survey Research



Step 6: Reporting Guidelines

- Introduction
- Methods
- Results
- Discussion
- Appendices
- Chapter Summary
- **Reporting Guidelines Checklist**

Use a reporting guidelines checklist to ensure that the report includes all essential elements and follows established standards. The checklist may include items such as:

- **Clear Structure:** Ensure the report follows a clear and logical structure.
- **Transparency:** Provide transparent and detailed information about the survey methodology and data analysis.
- **Consistency:** Verify that terminology and formatting are consistent throughout the report.
- **Ethical Considerations:** Confirm that ethical considerations and participant protections are appropriately addressed.
- **Comprehensive Results:** Ensure all relevant survey results are presented and discussed.

Reporting guideline	Questions to address in the manuscript
Introduction	
1. Provide a rationale for using a survey. ^a	<ul style="list-style-type: none"> • Why is a survey an appropriate data collection method? • How can the research question(s) be answered using a survey?
Method	
2. Describe how the survey was created or adapted from existing survey(s).	<ul style="list-style-type: none"> • How were the survey items developed? • What literature was reviewed? • If applicable, what changes were made to previously published surveys?
3. Describe how the survey was pretested prior to full implementation.	<ul style="list-style-type: none"> • Were experts used to pretest the survey? <ul style="list-style-type: none"> ◦ If so, describe their qualifications, how many were used, and what the review process was like. • Were cognitive interviews conducted? <ul style="list-style-type: none"> ◦ If so, describe the interviewees, how many were interviewed, and what the interviewing procedures were like. • Was a pilot test conducted? <ul style="list-style-type: none"> ◦ If so, describe the sample size, the types of participants, and how the pilot test was conducted.
4. Describe the final survey instrument, including how and when it was administered.	<ul style="list-style-type: none"> • Has the content of the final survey draft been described in detail (e.g., number and types of items and response options)? • Has a complete, formatted copy of the survey been provided for inclusion in the article's appendix? • What was the method of survey administration (e.g., web or paper based), and where and when was the survey administered? • Were survey responses anonymous or otherwise confidential? • How were respondents contacted, and how often? • How long did respondents have to complete the survey? • Were respondents offered incentives for completing the survey?
Results	
5. Describe the respondents, response rate, and how nonresponse bias was assessed.	<ul style="list-style-type: none"> • Who comprises the sample, and how does the sample relate to the population of interest? • What was the response rate, and how was it calculated? • Was nonresponse bias assessed, and if so, what was done to correct for it?
6. Describe how score reliability and validity were assessed. ^b	<ul style="list-style-type: none"> • What processes and statistics were used to assess the reliability of the survey scores? • What sources of validity evidence were collected, and how do they support the intended use of the survey results? <ul style="list-style-type: none"> ◦ At a minimum, content and response process validity should be considered (e.g., through expert reviews and cognitive interviewing). ◦ So-called "face validity" may be included but should be supplemented by other sources of validity evidence. • If applicable, what type of validity framework was used to guide survey development and validation (e.g., Messick's five sources of validity evidence,¹⁵ Kane's framework¹⁶)?

^aThe rationale can also be presented in the Method.

^bReliability and validity evidence are often presented elsewhere in a survey research report (e.g., Introduction, Method, or even Discussion).

“We outline six selected reporting guidelines to help authors make informed decisions during study design and manuscript preparation, and to help reviewers make informed decisions during manuscript evaluation.”

(Artino et al., 2018)

Six Steps for Survey Research



Step 1: Needs Assessment

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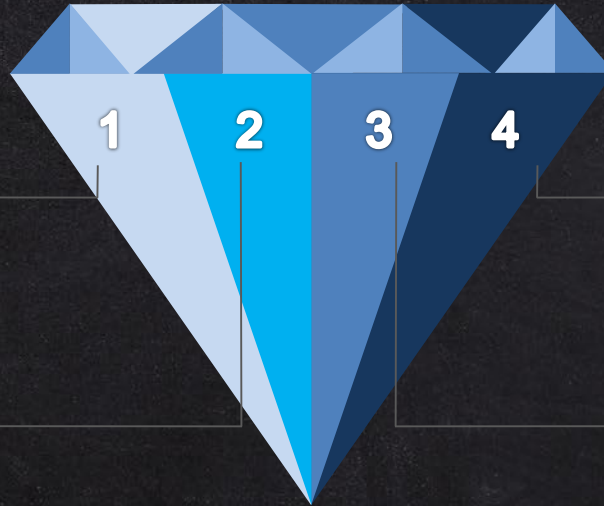
Step 4: Survey Delivery

Step 5: Data Analysis

Step 6: Reporting Guidelines

A practical, six-step approach to effective survey design, delivery, and analysis, provides a real-world framework for successful research and evaluation using surveys.

PART 2 - FINAL NOTES



Survey Research

It is the most common research approach in health profession education

Questionnaire

It is a specific tool to gather information from respondents

Fitting Purposes

Use survey research to fit the research purposes

Six Steps Approach

Provides a real-world framework for successful research and evaluation using surveys.



Thank You

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