



Department of Census and Statistics

Training Division

Training Module Description

Module: Research Methodology

Version: 1.0

Duration: 05 days

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Research Methodology

1.0 Module Description

Research is a tool which is used by a vast number of professions for studying and understanding the concepts, theories and philosophies. Research process deals with the ways and strategies used by the researchers to understand the world around them. If not followed properly, like so many other subjects, research also may lead to incorrect conclusions, which in turn may lead to the wrong decision.

This module is designed to provide clear guidelines required for undertaking a research project, at the same time to impart the knowledge to view research in a broader perspective and identify the advantages and disadvantages of different complementary research methodologies.

1.1 Objectives of the Module are;

- 1.1.1 To provide basic understanding about the concept of research
- 1.1.2 To provide the knowledge on selecting a research topic
- 1.1.3 Provide the knowhow to convert the research idea into a proposal
- 1.1.4 Provide an overview about different research methodologies
- 1.1.5 Provide knowledge about data collection and analysis
- 1.1.6 Provide knowledge on how to prepare the final report and present it

1.2 Target Participants

- Officers who needs to gain basic knowledge about research methodology and
- Any other who is interested in the area of research methodology

1.3 Brief Module Contents (Syllabus)

- Introduction to research methodology
- Compiling the research proposal
- Critically reviewing literature
- Research Strategy
- Research ethics
- Data collection methods I
- Data collection methods II
- Analysis of quantitative data
- Analysis of qualitative data
- Writing & presenting the report

1.4 Method of delivery (lecture/discussion/brainstorming session/activity etc)

A combination of methodologies will be used for the delivery of this module. Since hands-on knowledge is important when it comes to research methodologies, most of the sessions have a practical component in addition to the lecture session.

Session 1 (Day 1: 0900 – 1200hrs)

1.5 Session Description

This session is designed to provide a basic understanding about the concept of research and make the participant appreciate different types of research methodologies that are available. Also this session includes the scientific research process.

1.6 Session Learning Outcomes

By the end of this session participants will be able to;

- 1.6.1 Understand the concept of research
- 1.6.2 Identify different types of research methodologies available
- 1.6.3 Understand the scientific research process

1.7 Brief outline of the session

Introduction to research methodology

- What is research
- Types of research
- The scientific research process

2.0 Session 2 (Day 1: 1300 – 1600hrs)

2.1 Session Description

This session is designed to provide the required knowledge for the participant to identify a research problem, set research objectives and decide on a research design.

2.2 Session Learning Outcomes

By the end of this session participants will be able to;

- 2.2.1 Get an understanding about compiling a research proposal
- 2.2.2 Understand how to identify a research problem
- 2.2.3 Understand how to set objectives for the selected research problem
- 2.2.4 Identify a suitable research design for carrying out the research

2.3 Brief outline of the session

2.4 Compiling the research proposal

- 2.4.1 Identifying a research problem
- 2.4.2 Objectives of the research
- 2.4.3 Research design
- 2.4.4 Writing the proposal

3.0 Session 3 (Day 2: 0900 – 1200hrs)

3.1 Session Description

This session is designed to provide the necessary knowledge for the participant to review the literature critically. Initially they need to identify various types of literature sources, plan the literature survey and finally apply the referencing knowledge.

3.2 Session Learning Outcomes

By the end of this session participants will be able to;

- 3.2.1 Identify various sources of literature
- 3.2.2 Plan the literature survey which is required for the selected research topic
- 3.2.3 Understand the importance of referencing and learn different methods of referencing

3.3 Brief outline of the session

(Please insert the topics and sub topics)

3.4 Critically review of literature

- 3.4.1 Sources of literature
- 3.4.2 Planning and conducting literature search
- 3.4.3 Referencing

4.0 Session 4 (Day 2: 1300 – 1600hrs)

4.1 Session Description

This session is designed to provide the knowledge on different research strategies, importance of having a clear research strategy, and identify the instances where the researcher need to apply multi methods for conducting the research.

4.2 Session Learning Outcomes

By the end of this session participants will be able to;

- 4.2.1 Identify the need for a clear research strategy
- 4.2.2 Understand the different approaches that are available for research
- 4.2.3 Learn when to apply multi methods in research

4.3 Brief outline of the session

(Please insert the topics and sub topics)

4.4 Research Strategy

- 4.4.1 Different approaches to research
- 4.4.2 The need for a clear research strategy
- 4.4.3 Using multi methods

5.0 Session 5 (Day 3: 0900 – 1200hrs)

5.1 Session Description

This session is designed to provide the knowledge required for understanding research ethics and their importance for a research. Also this will enable the participant to understand the situations where they need to apply during the research process

5.2 Session Learning Outcomes

By the end of this session participants will be able to;

- 5.2.1 Understand the meaning of the term “research ethics” and the importance of it
- 5.2.2 Identify the strategies that can be used for maintaining ethics when conducting a research

5.3 Brief outline of the session

(Please insert the topics and sub topics)

5.4 Research ethics

- 5.4.1 Problems associated with data access
- 5.4.2 Strategies to be used
- 5.4.3 Research ethics

6.0 Session 6 (Day 3: 1300 – 1600hrs)

6.1 Session Description

This session is designed provide the required knowledge about two different data collection methods, namely observation method and interview method.

6.2 Session Learning Outcomes

By the end of this session participants will be able to;

- 6.2.1 Learn how to use different methods of data collection effectively
- 6.2.2 Understand how to apply observation method effectively for collecting data
- 6.2.3 Learn how to conduct an interview in order to collect data for a research study

6.3 Brief outline of the session

(Please insert the topics and sub topics)

6.4 Data collection methods I

- 6.4.1 Observation method
- 6.4.2 Interview method

7.0 Session 7 (Day 4: 0900 – 1200hrs)

7.1 Session Description

This session is designed to provide the participants with the necessary knowledge about primary data and secondary data collection method and their importance. Also this provides knowledge about questionnaire method.

7.2 Session Learning Outcomes

By the end of this session participants will be able to;

- 7.2.1 Understand the basic methods of primary data collection
- 7.2.2 Understand how to develop a questionnaire.
- 7.2.3 Understand the importance of secondary data and their applications

7.3 Brief outline of the session

(Please insert the topics and sub topics)

- Data collection methods II
 - Questionnaire method
 - Secondary data

8.0 Session 8 (Day 4: 1300 – 1600hrs)

8.1 Session Description

This session is designed to provide an understanding about various data preparation and presentation techniques that are available and at the same time to give required knowledge for understanding the existing relationships between variable.

8.2 Session Learning Outcomes

By the end of this session participants will be able to;

- 8.2.1 Understand and apply various methods of data preparation and presentation techniques
- 8.2.2 Understand what to look for in terms of identifying relationships that exist between variables.

8.3 Brief outline of the session

(Please insert the topics and sub topics)

- Analysis of quantitative data
 - Data preparation & presentation techniques
 - Examining relationships

9.0 Session 9 (Day 5: 0900 – 1200hrs)

9.1 Session Description

This session is designed to provide the participant with the required knowledge for understanding the difference between quantitative and qualitative data and at the same time understand the unique features of qualitative data along with the strategies that can be used for analyzing qualitative data.

9.2 Session Learning Outcomes

By the end of this session participants will be able to;

- 9.2.1 Understand the difference between quantitative data and qualitative data
- 9.2.2 Understand the unique features of qualitative data
- 9.2.3 Identify different strategies that can be used for analyzing qualitative data

9.3 Brief outline of the session

(Please insert the topics and sub topics)

9.4 Analysis of qualitative data

9.4.1 Understanding qualitative data

9.4.2 Strategies of qualitative analysis

10.0 Session 10 (Day 5: 1300 – 1600hrs)

10.1 Session Description

This session is designed to provide the participant with the knowledge for organizing and preparing the final report and how to organize an oral presentation.

10.2 Session Learning Outcomes

By the end of this session participants will be able to;

10.2.1 Understand how to structure the final report

10.2.2 Organize the content of the final report

10.2.3 Prepare an oral presentation of the contents

10.3 Brief outline of the session

(Please insert the topics and sub topics)

10.4 Writing & presenting the report

10.4.1 Structuring the report

10.4.2 Organizing the content

10.4.3 Preparing the report

11.0 Material for further reading and useful web links

11.1 The Social Research Association's Ethical Guidelines (<http://www.the-sra.org.uk>)

11.2 British Psychological Society's' Code of Conduct (<http://www.bps.org.uk>)

11.3 American Psychological Association's Ethical Principles of Psychologists and Code of Conduct (<http://apa.org>)

11.4 The British Sociological Association's Statement of Ethical Practice (<http://www.britisoc.org.uk>)

12.0 Model MCQ Paper (Containing minimum 25 MCQ questions from taught subject matter)

12.1 Q1

12.1.1 CHOICE 1

12.1.2 CHOICE 2

12.1.3 CHOICE 3

12.1.4 CHOICE 4

- 12.2 Q2
 - 12.2.1 CHOICE 1
 - 12.2.2 CHOICE 2
 - 12.2.3 CHOICE 3
 - 12.2.4 CHOICE 4

- 12.3 Q3
 - 12.3.1 CHOICE 1
 - 12.3.2 CHOICE 2
 - 12.3.3 CHOICE 3
 - 12.3.4 CHOICE 4

- 12.4 Q4
 - 12.4.1 CHOICE 1
 - 12.4.2 CHOICE 2
 - 12.4.3 CHOICE 3
 - 12.4.4 CHOICE 4

- 12.5 Q5
 - 12.5.1 CHOICE 1
 - 12.5.2 CHOICE 2
 - 12.5.3 CHOICE 3
 - 12.5.4 CHOICE 4

- 12.6 Q6
 - 12.6.1 CHOICE 1
 - 12.6.2 CHOICE 2
 - 12.6.3 CHOICE 3
 - 12.6.4 CHOICE 4

- 12.7 Q7
 - 12.7.1 CHOICE 1
 - 12.7.2 CHOICE 2
 - 12.7.3 CHOICE 3
 - 12.7.4 CHOICE 4

- 12.8 Q8
 - 12.8.1 CHOICE 1
 - 12.8.2 CHOICE 2
 - 12.8.3 CHOICE 3
 - 12.8.4 CHOICE 4

- 12.9 Q9
 - 12.9.1 CHOICE 1
 - 12.9.2 CHOICE 2
 - 12.9.3 CHOICE 3
 - 12.9.4 CHOICE 4

12.10 Q10
12.10.1 CHOICE 1
12.10.2 CHOICE 2
12.10.3 CHOICE 3
12.10.4 CHOICE 4

12.11 Q11
12.11.1 CHOICE 1
12.11.2 CHOICE 2
12.11.3 CHOICE 3
12.11.4 CHOICE 4

12.12 Q12
12.12.1 CHOICE 1
12.12.2 CHOICE 2
12.12.3 CHOICE 3
12.12.4 CHOICE 4

12.13 Q13
12.13.1 CHOICE 1
12.13.2 CHOICE 2
12.13.3 CHOICE 3
12.13.4 CHOICE 4

12.14 Q14
12.14.1 CHOICE 1
12.14.2 CHOICE 2
12.14.3 CHOICE 3
12.14.4 CHOICE 4

12.15 Q15
12.15.1 CHOICE 1
12.15.2 CHOICE 2
12.15.3 CHOICE 3
12.15.4 CHOICE 4

12.16 Q16
12.16.1 CHOICE 1
12.16.2 CHOICE 2
12.16.3 CHOICE 3
12.16.4 CHOICE 4

12.17 Q17
12.17.1 CHOICE 1
12.17.2 CHOICE 2
12.17.3 CHOICE 3

12.17.4 CHOICE 4

12.18 Q18

12.18.1 CHOICE 1

12.18.2 CHOICE 2

12.18.3 CHOICE 3

12.18.4 CHOICE 4

12.19 Q19

12.19.1 CHOICE 1

12.19.2 CHOICE 2

12.19.3 CHOICE 3

12.19.4 CHOICE 4

12.20 Q20

12.20.1 CHOICE 1

12.20.2 CHOICE 2

12.20.3 CHOICE 3

12.20.4 CHOICE 4

12.21 Q21

12.21.1 CHOICE 1

12.21.2 CHOICE 2

12.21.3 CHOICE 3

12.21.4 CHOICE 4

12.22 Q22

12.22.1 CHOICE 1

12.22.2 CHOICE 2

12.22.3 CHOICE 3

12.22.4 CHOICE 4

12.23 Q23

12.23.1 CHOICE 1

12.23.2 CHOICE 2

12.23.3 CHOICE 3

12.23.4 CHOICE 4

12.24 Q24

12.24.1 CHOICE 1

12.24.2 CHOICE 2

12.24.3 CHOICE 3

12.24.4 CHOICE 4

12.25 Q25

12.25.1 CHOICE 1

12.25.2 CHOICE 2

