



Mangalmai Institute of Management Technology
Greater Noida (U.P.)



MANGALMAY
INSTITUTE OF MANAGEMENT TECHNOLOGY



CERTIFICATION PROGRAMME

On

Research Methodology

From

20-March-2023 to 08-May-2023

Convener: Mr. Abhay N Tripathi, Associate Professor

For BCA 4th Semester

Resource Person

Mr. Brijesh Kumar

Assistant Professor, MIMT



Syllabus

Research Methodology

Duration: 30 Hours

Course Objective

1. To introduce the basic concepts in research methodology in Social science.
2. To inherent in selecting a research problem and discuss the techniques and tools to be employed in completing a research project.

Course Outcome

1. Students who complete this course will be able to understand and comprehend the basics in research methodology and applying them in research/ project work.
2. This course will help them to select an appropriate research design.

Module: 1

Foundations of Research: Meaning, Objectives, Motivation, Utility. Concept of theory, empiricism, deductive and inductive theory. Characteristics of scientific method - Understanding the language of Research - Concept, Construct, Definition, Variable. Research Process.

Module: 2

Problem Identification & Formulation - Research Question - Investigation Question - Measurement Issues - Hypothesis - Qualities of a good Hypothesis Null Hypothesis & Alternative Hypothesis. Hypothesis Testing - Logic & Importance. Research Design: Concept and Importance in Research - Features of a good research design - Exploratory Research Design - concept, types and uses, Descriptive Research Designs - concept, types and uses. Experimental Design: Concept of Independent & Dependent variables.

Module: 3

Qualitative and Quantitative Research: Qualitative research - Quantitative research - Concept of measurement, causality, generalization, replication. Merging the two approaches. Measurement: Concept of measurement- what is measured? Problems in measurement in research- Validity and Reliability. Levels of measurement Nominal, Ordinal, Interval, Ratio.

Recommended Books:

1. Business Research Methods- Donald Cooper & Pamela Schindler, TMGH, 9th editions.
2. Business Research Methods- Alan Bryman & Emma Bell, Oxford University Press.
3. Research Methodology- C. R. Kothari



Schedule

Duration: 30 hours

Session	Content	Time	Date
1.	Introduction , Meaning ,objective and utility of research.	03:00-5:00	20-Mar-23
2.	Concept of different theories like deductive and inductive theory	03:00-5:00	22-Mar-23
3.	Characteristics of scientific method in Research	03:00-5:00	27-Mar-23
4.	Concept , construction and definition of different types of variables	03:00-5:00	29-Mar-23
5.	Research process steps	03:00-5:00	03-Apr-23
6.	Problem Identification & Formulation - Research Questions	03:00-5:00	05-Apr-23
7.	Investigation Question - Measurement Issues	03:00-5:00	10-Apr-23
8.	Hypothesis - Qualities of a good Hypothesis Null Hypothesis & Alternative Hypothesis.	03:00-5:00	12-Apr-23
9.	Hypothesis testing like parametric and non parametric test.	03:00-5:00	17-Apr-23
10.	Research Design: Concept and Importance in Research - Features of a good research design - Exploratory Research Design	03:00-5:00	19-Apr-23
11.	Concept of Qualitative and quantitative research	03:00-5:00	24-Apr-23
12.	Concept of measurement, causality, generalization, replication.	03:00-5:00	26-Apr-23
13.	Problems in measurement in research	03:00-5:00	01-May-23
14.	Concept of Validity and Reliability	03:00-5:00	03-May-23
15.	Levels of measurement like Nominal, Ordinal, Interval, Ratio	03:00-5:00	08-May-23



	Report
Name of Activity	Research Methodology
Date	20-March-2023 to 08-May-2023
Venue	BCA Classroom
Organized by	Computer Application Department
Resource Person	Mr. Brijesh Kumar, Assistant Professor, MIMT
Beneficiary	BCA 4th Semester (24 students)
Coordinator	Mr. Abhay N Tripathi, Associate Professor, MIMT
Objective	This course on Research Methodology: <ul style="list-style-type: none">• To introduce the basic concepts in research methodology in Social science• To inherent in selecting a research problem and discuss the techniques and tools to be employed in completing a research project.
Content	<p>With the initiative of IQAC, Mangalmai Institute of Management and Technology organized add on certification course on “Research Methodology”.</p> <p>Day1: The session started with the Introduction , Meaning ,objective and utility of research</p> <p>Day 2: In this session, the resource person introduce Concept of different theories like deductive and inductive theory</p> <p>Day 3: In this session, the student came to know about Characteristics of scientific method in Research</p> <p>Day 4: This session was focused on Concept , construction and definition of different types of variables.</p> <p>Day 5: Student learnt about Research process steps.</p> <p>Day 6: Introduction to Problem Identification & Formulation - Research Questions</p> <p>Day 7: The session starts with the Investigation Question - Measurement Issues</p> <p>Day 8: Resource person discussed about the Hypothesis - Qualities of a good Hypothesis Null Hypothesis & Alternative Hypothesis</p> <p>Day9: In this session Resource person discuss about hypothesis testing like parametric and non-parametric test.</p> <p>Day 10: In this session, the resource person discusses the Research Design: Concept and Importance in Research - Features of a good research design - Exploratory Research Design</p> <p>Day 11: In this session, Concept of Qualitative and quantitative research was introduced.</p> <p>Day 12: Concept of measurement, causality, generalization, replication.</p> <p>Day 13: In this session, Problems in measurement in research was taught.</p> <p>Day 14: In this session, the resource person delivered about Concept of Validity and Reliability .</p> <p>Day 15: This session was on the introduction of Levels of measurement like Nominal, Ordinal, Interval, Ratio .</p>
Outcome of Activity	On completion of the programme : <ul style="list-style-type: none">• The candidates will be able to apply the knowledge of research methodology and applying them in research/ project work• Candidate will be able to select an appropriate research design



Resource Person Profile

Name : Mr. Ravi Brijesh kumar, Asst. Professor, MIMT

Core Skills: Operations and Quantitative techniques

Qualification: B.Sc, MBA, M.Sc PhD(P)

Experience: 14 years

Research Area: Operations Management



Figure 1 Mr. Brijesh kumar during his session



Mangalmay Institute of Management Technology
Greater Noida (U.P.)



Certificate Template:

	MANGALMAY INSTITUTE OF MANAGEMENT TECHNOLOGY Gr. NOIDA	
CERTIFICATE OF COURSE COMPLETION		
This is to certified the Ajeet Tiwari student of BCA (Batch: 2021-24) has successfully completed 30 Hours course on "Research Methodology" from 20-March-2023 to 8-May-2023		
 PRINCIPAL Mangalmay Institute of Management & Technology	 CONVENER Mangalmay Institute of Management Technology	



Mangalmai Institute of Management Technology
Greater Noida (U.P.)





Course: BCA

ADD-ON COURSE QUIZ
Course Name: Research Methodology

Time: 30Min

Date:

Roll No:

Name: Utpal das

Year/Sem: II/IV

Invigilator's Sign: vehg

Note: All questions are compulsory. Each question will carry '1' mark and there is no 'Negative Marking'

- 1) Who was the author of the book named "Methods in Social Research"?
 - a. Kerlinger
 - b. CR Kothari
 - c. Goode and Hatt
 - d. Wilkinson
- 2) What is the name of the conceptual framework in which the research is carried out?
 - a. Research hypothesis
 - b. Synopsis of Research
 - c. Research paradigm
 - d. Research design
- 3) Which of the following features are considered as critical in qualitative research?
 - a. Collecting data with the help of standardized research tools.
 - b. Design sampling with probability sample techniques.
 - c. Collecting data with bottom-up empirical evidence.
 - d. Gathering data with top-down schematic evidence
- 4) How is random sampling helpful?
 - a. Reasonably accurate
 - b. An economical method of data collection
 - c. Free from personal biases
 - d. All of the above
- 5) In order to pursue the research, which of the following is priorly required?
 - a. Developing a research design
 - b. Formulating a research question
 - c. Deciding about the data analysis procedure
 - d. Formulating a research hypothesis
- 6) Which one among the following statements is false in the context of particiatory-research?
 - a. It recognizes knowledge as power
 - b. It is a collective process of inquiry
 - c. It emphasizes people as experts
 - d. Its sole purpose is the production of knowledge
- 7) Which one among the following statement is true in the context of the testing of hypotheses?
 - a. It is only the alternative hypotheses that can be tested.
 - b. It is only the null hypotheses that can be tested.
 - c. Both the alternative and the null hypotheses can be tested.
 - d. Both the alternative and the null hypotheses cannot be tested.

- 8) What are the conditions in which Type-I error occurs?
- a. The null hypotheses get accepted even if it is false
- b. The null hypotheses get rejected even if it is true
- c. Both the null hypotheses as well as alternative hypotheses are rejected
- d. None of the above
- 9) What does the longitudinal research approach actually deal with?
- a. Long-term research
- b. Short-term research
- c. Horizontal research
- d. None of the above
- 10) What do you understand by the term "Anusandhan"?
- a. Goal-oriented
- b. Following an aim
- c. Attaining an aim
- d. Praying to achieve an aim
- 11) Which of the following does not correspond to characteristics of research?
- a. Research is not passive
- b. Research is systematic
- c. Research is not a problem-oriented
- d. Research is not a process
- 12) Which of the following options are the main tasks of research in modern society?
- a. To learn new things
- b. To keep pace with the advancement in knowledge
- c. To systematically examine and critically analyze the investigations/sources with the objective
- d. All of the above
- 13) The main aim of the scientific method in the research field is to _____
- a. Improve data interpretation
- b. Confirm triangulation
- c. Introduce new variables
- d. Eliminate spurious relations
- 14) A researcher is interested in studying the prospects of a particular political party in an urban area. So, what tool should he prefer for the study?
- a. Rating Scale
- b. Interview
- c. Questionnaire
- d. Schedule
- 15) How to judge the depth of any research?
- a. By research title
- b. By research duration
- c. By research objectives
- d. By total expenditure on research

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Max. Marks: 15

Marks Obtained: (15)

Name of Evaluator: *Brijesh K*

Sign. *BK*



Course: BCA

ADD-ON COURSE QUIZ
Course Name: Research Methodology

Time: 30Min

Date:

Roll No:

Name: Lakshay Sharma

Year/Sem: II/IV

Invigilator's Sign: Neha

Note: All questions are compulsory. Each question will carry '1' mark and there is no 'Negative Marking'

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- c. Collecting data with bottom-up empirical evidence. d. Gathering data with top-down schematic evidence
- 4) How is random sampling helpful?
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- c. Free from personal biases d. All of the above
- 5) In order to pursue the research, which of the following is priorly required?
- a. Developing a research design b. Formulating a research question
- c. Deciding about the data analysis procedure d. Formulating a research hypothesis
- 6) Which one among the following statements is false in the context of participatory research?
- a. It recognizes knowledge as power b. It is a collective process of inquiry
- c. It emphasizes people as experts d. Its sole purpose is the production of knowledge
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- b. Interview
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- d. Schedule
- 15) How to judge the depth of any research?
- a. By research title
- b. By research duration
- c. By research objectives
- d. By total expenditure on research

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Max. Marks: 15

Marks Obtained: 14

Name of Evaluator: *Brijesh Kr* Sign. *Brijesh*



Course: BCA

ADD-ON COURSE QUIZ
Course Name: Research Methodology

Time: 30Min
Date:

Roll No:

Name: Ajit tiwari

Year/Sem: II/IV

Invigilator's Sign: Neha

Note: All questions are compulsory. Each question will carry '1' mark and there is no 'Negative Marking'

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- c. By research objectives
- d. By total expenditure on research *11/11*

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Max. Marks: 15

Marks Obtained: *(13)*

Name of Evaluator: *Binay K R*

Sign. *[Signature]*



Course: BCA

ADD-ON COURSE QUIZ
Course Name: Research Methodology

Time: 30Min

Date:

Roll No:

Name: *Saxshi*

Year/Sem: II/IV

Invigilator's Sign: *Nehe*

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Max. Marks: 15

Marks Obtained: (14)

Name of Evaluator: Brijesh Kr

Sign. 