Essential Skills in Research Methods:
All the Tools and Skills Needed in the 21st Century

Interested to learn how to complete a research proposal for the industry and academic?
Want to learn the secret to conduct scientific research?

Introduction

The two-day training program will appeal to those of you who require an understanding of research approaches and skills, and importantly, an ability to deploy them in your studies or your professional lives. This course will aid those of you who have to research as part of your postgraduate study but do not perhaps have access to research methods courses, or for those of you who feel you would like additional support for self-improvement. No prior knowledge or experience in research is required to take this course, and as such, the course is for everyone.

Program Objectives

This program aims to

- Understand the basis of scientific research
- Construct a scientific research framework
- Write the complete research proposal

Learning Outcomes

After completing this program, participants should be able to

- Understand the fundamental of scientific research methodology.
- Address the problem statement in a research
- Construct research objectives, hypothesis, theoretical framework
- Choose the right research design; construct a valid and reliable instrument.
- Conduct a sustainable and ethical research
- Complete a research report professionally

Who Should Attend?

Junior and senior academicians and anyone who wish to enhance their research skills

Methodology

Case studies, forum discussion, role-play, presentations, gamification

Program Outlines

Time	Day One
9.00am– 10.30am	**Examine the Role and Importance of The Scientific Method** In this module, participants would be exposed to the role of scientific research and the fundamental of scientific research. In addition, participants would learn the flow of scientific research, especially on principles of scientific inquiry. In order to appreciate the scientific method, a method of theory construction is exposed to the participants. **Beginning the Research: Literature Review** In this module, participants would be exposed to the purposes of a literature review. Sources of information and conducting a literature review, reading and note-taking strategies in the literature review. In addition, participants will learn the reference management.
10.30am-11.00am	**Break and Networking**
11.00am-1.00pm	**Essential Technique Towards Successful Literature Review** In this module, participants will learn the right method to read a journal and secondary data. Then, participants would learn a method of how to structure a literature review before start writing literature reading. In this session, participants would learn the technique of literature reporting, especially the in-text citations as the foundation of the literature review.
1.00pm-2.00pm	**Lunch Break and Networking**
2.00pm-3.30pm	**Moving forwards from Your Reading: Introduction to the Study** From a reading of journals and secondary documents, participants will be trained in identifying the background of the study, the problem statement, the needs of the study. For the needs of the study, general and specific objectives are developed. From the objectives, research questions are constructed to guide the study. The assumption of the study and contribution of the study.
3.30pm-4.00pm	**Break and Networking**

4.00pm-5.00pm	**Converting Literature Reporting to Literature Review with the complete theoretical framework** In this module, participants would critically and systematically to review the academic work and build up the conceptual framework. From the conceptual framework, a theoretical framework is developed according to the objectives, research questions. Hypotheses are constructed based on the theoretical framework, objectives and research questions.
Time	**Day Two**
9.00am– 10.30am	**Research Design and Sampling Design** Participants would be exposed to various research designs, both survey design and experimental design. From the research design, sampling size, sampling method and sampling procedure are exposed to the participants. The concept of validity and reliability are introduced in this session.
10.30am-11.00am	**Break and Networking**
11.00am-1.00pm	**Foundation of Measurement** In order to evaluate the hypothesis, the nature of measurement needs to be understood. The level of measurement, evaluation of measurement scales, especially on reliability and validity, is discussed. **Scaling and Instrument Design** The questionnaire is developed to answer research questions. Various types of designing questionnaire will be discussed, such as question phrasing, response formats, frequently used scale techniques, instrument design is discussed.
1.00pm-2.00pm	**Lunch Break and Networking**
2.00pm-3.30pm	**Data Collection and Data Management** Data collection techniques are discussed such as personal interviewing, focus group discussion, telephone interview, email interview, computerised aided interview, focus group and in-depth interview. Both qualitative and quantitative data management is shared.

3.30pm-4.00pm	**Break and Networking**
4.00pm-5.00pm	**Writing a Research Proposal** In this module, participants are trained on writing a research outline and milestone of the research for the completion of a research proposal.