



## **Research Methodology for DRR**

### **Rationale of the Course:**

To train and empower students in collecting and using data from fragile regions and vulnerable populations during and after cataclysmic situations. This would help students to interact and plan within a transdisciplinary framework of emergency situations.

### **Objectives of the Course:**

- 1) The methods of disaster research are similar to those used within the framework of social sciences and in fact also extends to include training modules through psycho social counselling. However, these methods transcend beyond social science frameworks to address the needs of disasters in the making or during and after.
- 2) The present course attempts to introduce the conceptual research techniques in social sciences and their relevance and importance in the learning of the methodological issues with particular reference to Disaster Studies.
- 3) Data handling and compilation in terms of structured presentation with readily understandable tabulation and graphical representations will be covered. The course seeks to familiarise students to a wide range of methods including qualitative, quantitative and mixed methods.
- 4) The ethics of addressing vulnerability and reproducing situations for those in distress, suffering and death.

### **Course Contents**

#### *Unit 1 :Introduction to Research in Social Sciences*

Relevance and significance of research methods in social sciences; social science research versus natural science research; limitations of social science research; incorporating ethical practices in research; research in Disaster Studies

#### *Unit 2: Damages, Losses, Deaths and Disappearance Assessment techniques, Crime recording and Reporting systems*

Sources of information; techniques of data collection (observation, perception of respondents, questionnaire); participant and non-participant observation; interviewing; documentation, classification and tabulation of information; graphical and diagrammatical representation.

#### *Unit 3: Research Ethics*

Plagiarism; forms of plagiarism; why plagiarism is unethical; acknowledging sources; ethical considerations in social research.

#### *Unit 4: Qualitative and Quantitative Methods*

Qualitative research; interpretive and constructivist methodologies; ethnography; content analysis; discourse analysis. Case study research; single case and multiple case studies; selection bias; comparative study. Statistics; descriptive and inferential statistics; descriptive statistics (mean, median, quartiles, summations, dispersion, coefficient of variation); comparison and analysis of information;

measures of inequality; correlation and regression. *Unit 5: Sampling human and nonhuman lives and property*

Importance of a sample; characteristics of a sample, difference between a large sample and small sample; parameters and statistics; types of sampling (simple random sampling, systematic sampling, stratified sampling); tests of significance, Removing the biasness of scale

*Unit 6: Preparation of a Research Proposal/Synopsis*

Definition and scope of a research problem; research design; formulation of research questions; constructing a hypothesis; review of literature; reference writing, references/bibliography; footnotes/endnotes/in-text notes.

## Reading List

- Alan Bryman, *Social Research Methods* (Oxford: Oxford University Press, 2012).
- Alan Agresti and Barbara Finlay, *Statistical Methods for the Social Sciences* (New Jersey: Prentice-Hall, 1997).
- Aslam Mahmood, *Statistical Methods in Geographical Studies* (New Delhi: Rajesh Publications, 2012).
- Chapman, D. W. (1962). A brief introduction to contemporary disaster research. *Man and society in disaster*. New York: Basic Books, 3-22.
- Dynes, R. R. (1986). The concept of role in disaster research.
- Dynes, R. R., & Drabek, T. E. (1994). The structure of disaster research: Its policy and disciplinary implications.
- Kilpatrick, D. G. (2004). The ethics of disaster research: A special section. *Journal of Traumatic Stress*, 17(5), 361-362.
- Levine, C. (2004). The concept of vulnerability in disaster research. *Journal of Traumatic Stress*, 17(5), 395-402.
- North, C. S., & Norris, F. H. (2006). Choosing research methods to match research goals in studies of disaster or terrorism. *Mental health research*, 45-61.
- **John P. Cole and Cuchlaine A.M. King, *Quantitative Geography: Techniques and Theories in Geography*** (London, New York and Sydney: John Wiley and Sons, 1968).
- Charles C. Ragin, *The Comparative Method: Moving Beyond Qualitative and Quantitative Strategies* (Berkley, LA and London: University of California Press, 1989).
- Partha Nath Mukherji (ed.), *Methodology in Social Research: Dilemmas and Perspectives* (New Delhi/Thousand Oaks/London: Sage, 2000).
- W.J. Goode and P.K. Hatt, *Methods in Social Research* (New York: McGraw-Hill, 1952).
- Green, B. L. (1996). Cross-national and ethno-cultural issues in disaster research.
- Janssen, M., Lee, J., Bharosa, N., & Cresswell, A. (2010). Advances in multi-agency disaster management: Key elements in disaster research. *Information Systems Frontiers*, 12(1), 1-7.
- McFarlane, A. C., & Norris, F. H. (2006). Definitions and concepts in disaster research. *Methods for disaster mental health research*, 3-19.
- Morrow, B. H. (1998). *The gendered terrain of disaster*. E. Enarson (Ed.). Westport, CT: Praeger.
- Bergmann, Matthias., Jahn,Thomas., Knobloch,Tobias., Krohn,Wolfgang.,etal 2012, Methods of transdisciplinary research: A primer for practice, Frankfurt :Campus Verlag, translated by Ronald C. Faust.
- G. Hirsch Hadorn, Ch. Pohl, M. Scheringer 2009, Unity of Knowledge in Transdisciplinary research for sustainability. Vol. II - *Methodology of Transdisciplinary Research*, Oxford:Eolss PublisherS, UNESCO.