



**A textbook on**

# **RESEARCH METHODOLOGY**

**(Practicals with SPSS & JAMOVI)**

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# **A TEXTBOOK ON RESEARCH METHODOLOGY**

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## **PREFACE**

Research is the foundation for the building of knowledge and problem solving. It must be well-understood method to ensure that it is precise, reliable, and imaginative. With today's world fast-paced and data-driven environment, it is really necessary for students and professionals alike to learn how to research properly. "The Textbook on Research Methodology" was designed to suit many users, ranging from novice students who are conducting their first studies to veteran professionals who want to hone their research skills.

Here, we discuss such topics as research methods and combine theory with practical application. We cover the basic aspects of research design, data collection, hypothesis building, and result analysis and focus on the necessity of choosing the appropriate methods depending on the type of research. Paying special attention to both qualitative and quantitative methods, we ensure that readers know how to deal with complex research questions. The use of modern tools such as SPSS and JAMOVİ in order to analyze and interpret data to draw insights is a key part of this textbook. Data analysis plays an important role in making most decisions nowadays; therefore, learning how to utilize them properly is highly pertinent. With clear tutorials and examples, readers are guided through step-by-step ways to utilize these programs in performing actual statistical analysis, thereby increasing the validity and trustworthiness of their results. Case studies, along with practical exercises, are of further use to introduce these methodologies within real-world settings.

We want this book to share knowledge but also inspire critical thinking and problem solving in the research endeavor. With our use of both old and new models for research, we hope that readers can be empowered to conceive new ideas in their own projects, whether in school or business. We would like to especially thank many colleagues, mentors, and students who with their feedback and support helped us create this work. We believe that this book may be pretty useful for many readers, and even will help them take a grasp of the exciting research journey clearly and accurately.

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## **Abbreviations**

Analysis of Variance (ANOVA)

Brighton Business School (BBS)

Committee on Publication Ethics (COPE)

Confirmatory Data Analysis (CDA)

Exploratory Data Analysis (EDA)

General Data Protection Regulation (GDPR)

Graphical User Interface (GUI)

In-Depth Interviews (IDIs)

Institutional Review Board (IRB)

International Mathematics and Science Study (TIMMS)

International Student Assessment (PISA)

Modern Language Association (MLA)

Multivariate Analysis of Variance (MANOVA)

Null Hypothesis Significance Testing (NHST)

Open Science Framework (OSF)

Post-Traumatic Stress Disorder (PTSD)

Programme for International Student Assessment (PISA)

Service Quality (SERVQUAL)

Statistical Analysis System (SAS)

Statistical Package for Social Sciences (SPSS)

Structural Equation Modeling (SEM)

Trends in International Mathematics and Science Study (TIMMS)

World Association of Medical Editors (WAME)

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**Aparna Kandikota** is an emerging academic author making her debut with the insightful book, "A TEXTBOOK ON RESEARCH METHODOLOGY (PRACTICALS WITH SPSS/JAMOVI)". Aparna brings a wealth of knowledge and practical experience to the field of Research Methodology. Aparna holds an MBA in Finance and M.Com, credentials that underscore her strong academic background. She currently serving as an Assistant Professor in Loyola Academy, where she is dedicated to inspiring and guiding students in their academic journey. Her passion for research and commitment to education are the driving forces behind her first book. Beyond her professional achievements. Aparna has a interest in Research that fuels her continuous quest for knowledge and is about to submit her Ph.D thesis soon. She is an avid reader, constantly exploring new ideas and perspectives through books, which enriches her teaching and writing.

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