



AIU-DEI-AADC



Report on 5-Day National Workshop on Experimental Research in Social and Behavioral Sciences

September 19, 2024 to September 23, 2024

Executive Summary

The Association of Indian Universities-Dayalbagh Educational Institute-Academic and Administrative Development Center (AIU-DEI-AADC) in association with the Faculty of Education, DEI organized a 5-day *National Workshop on Experimental Research in Social and Behavioral Sciences* from September 19-23, 2024.

The workshop aimed to equip participants with a thorough understanding of the methodologies, techniques, and ethical considerations necessary to conduct rigorous experimental research. It is designed to provide participants with comprehensive knowledge and practical skills in experimental research. Through a combination of lectures, hands-on activities, and discussions, participants gained valuable insights and experience that enhanced their research capabilities. The comprehensive course content featured ten sessions expertly crafted by twelve resource persons. A total of one hundred and seven participants from diverse locations attended the workshop in a blended mode.

Resource Persons

Prof. Ashok K. Shrivastava
Former Professor & Head,
Research Division, NCERT, New Delhi



Prof. Veera Gupta,
Honorary Director (Malaviya Mission Teacher
Training Centre (MMTTC))
Professor (Department of Teacher Training & Non-
formal Education)



Dr. Anup Kumar
Associate Professor,
Sanjay Gandhi Post Graduate Institute
of Medical Sciences, Lucknow



Dr. Keerti Jain
Associate Professor, Institute of
Management Technology (IMT CDL) -
Centre for Distance Learning, Ghaziabad



Dr. Rajendra Prasad

Assistant Professor, Central Institute of Education (CIE), University of Delhi, New Delhi



Dr. Shraddha Sharma

Assistant Professor, Pandit Deendayal Energy University, Gandhi Nagar, Gujrat



Prof. Kamal Jeet Sandhu

Professor & Head, Department of Psychology (Faculty of Social Sciences), Dayalbagh Educational Institute, Dayalbagh, Agra



Prof. Sona Ahuja

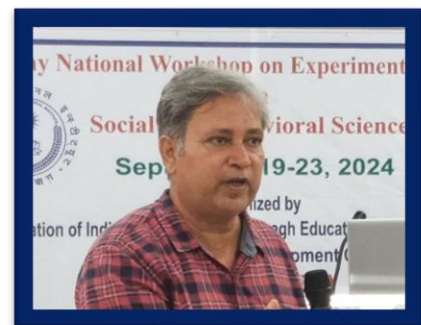
Professor, Faculty of Education, Dayalbagh Educational Institute, Dayalbagh, Agra



Prof. Sunita Kumari Malhotra
Professor, Department of Management
(Faculty of Social Sciences), Dayalbagh
Educational Institute, Dayalbagh, Agra



Dr. Agam Tyagi
Associate Professor, Department of
Mathematics, (Faculty of Science) Dayalbagh
Educational Institute, Dayalbagh, Agra



Programme Schedule

Time▶ Date▼	01:15pm-03:15pm	03:15pm- 03:30pm	03:30pm-05:30pm
Day 1 19.09.2024 (Thursday)	Inaugural Ceremony (01:15 pm-01:45 pm)	<i>Lunch Break</i>	Types of experimental research <i>Dr. Shraddha Sharma</i>
	Introduction to experimental research <i>Dr. Anup Kumar</i>		Experimental research Designs <i>Dr. Rajendra Prasad</i>
Day 2 20.09.2024 (Friday)	Need & importance of experimentation <i>Prof. Sunita Kumari Malhotra</i>		Selection of statistics according to experimental design <i>Dr. Keerti Jain</i>
	Sampling techniques and adequacy of sample <i>Dr. Agam Tyagi</i>		Randomization and control techniques in experimental research <i>Prof. Ashok K. Srivastava</i>
Day 3 21.09.2024 (Saturday)	Threats and ethical issues in experimental research <i>Prof. Sona Ahuja</i>		Challenges in experimental research <i>Prof. Veera Gupta</i>
Day 4 22.09.2024 (Sunday)	Formulating research questions & hypothesis for experimental research <i>Dr. Anup Kumar</i>	Closing Ceremony (04:45 pm-05: 30 pm)	
Day 5 23.09.2024 (Monday)	Planning and pilot testing in Experimental research <i>Prof. Kamal Jeet Sandhu</i>		

Inaugural Ceremony

The workshop inauguration took place on 19.09.2024. The event commenced with a warm welcome by Prof. Nandita Satsangi, the Dean of the Faculty of Education, extending greetings to esteemed guests and participants. Subsequently, Prof. Jyoti Gogia, the Nodal officer of AIU-DEI-AADC, delivered a concise overview of the



AADC and its operational framework. Prof. N P S Chandel, the convener, delineated the workshop's objectives. The workshop's Chief Guest, Prof. C. Patvardhan, Director of Dayalbagh Educational Institute (Deemed to be University), underscored the importance of integrating technology into research endeavors to

match the rapid pace of global advancements. The inaugural address was delivered by Dr. Anup Kumar, representing the Department of Biostatistics and Health Informatics at Sanjay Gandhi Postgraduate Institute of



Medical Sciences; Lucknow. During the address, Dr. Kumar provided a succinct overview of



Experimental Research. Following this, Prof. Savita Srivastava extended the vote of thanks. Dr. Shalini Verma, the co-convener of the workshop, efficiently coordinated the inaugural session.

Programme Sessions

During the initial session, Dr. Shraddha Sharma from Pandit Deendayal Energy University in Gandhinagar, Gujarat, delivered a comprehensive lecture on the diverse facets of experimental research. Dr. Sharma underscored the pivotal role of experimental research in advancing knowledge and guiding evidence-based practices.



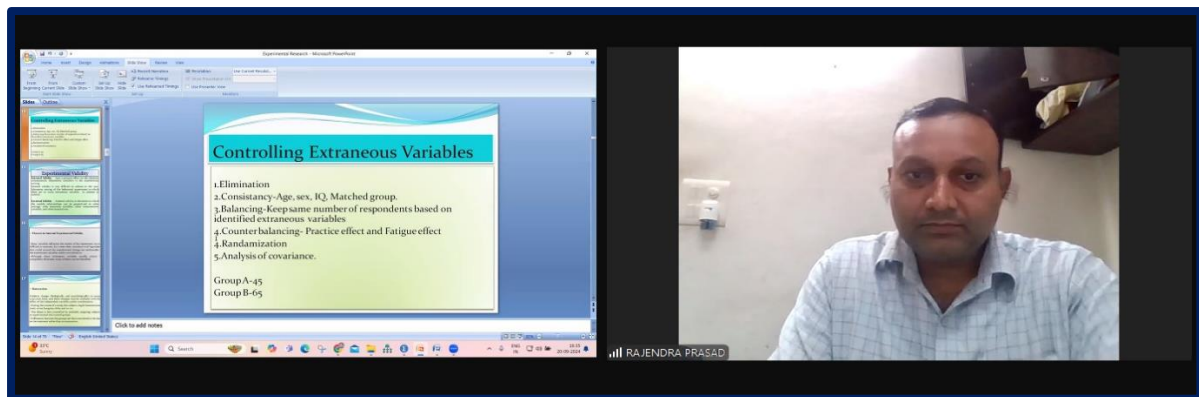
Furthermore, the discourse highlighted the significance of experimental research in comprehending the influence of variables on outcomes and facilitating evidence-based decision-making.



During the initial session of the second day, Prof. Sunita Kumari Malhotra, from the Department of Management at the Faculty of Social Sciences, DEI, emphasized the necessity and significance of experimentation within the social and behavioral sciences. She provided several practical illustrations to evaluate intricate human behavior, the influence of specific circumstances such as the pandemic, and the implementation of new policies on human behavior.



Dr. Agam Tyagi, from the Department of Mathematics at DEI, emphasized the significance of Sampling as a fundamental aspect of research. Understanding the various techniques associated with sampling is essential for the execution of valid and reliable studies. Dr. Tyagi elucidated both probability and non-probability sampling techniques, providing illustrative examples. Gaining knowledge about these techniques can equip individuals with the ability to circumvent common pitfalls such as sampling bias and ensure the representativeness of their research.

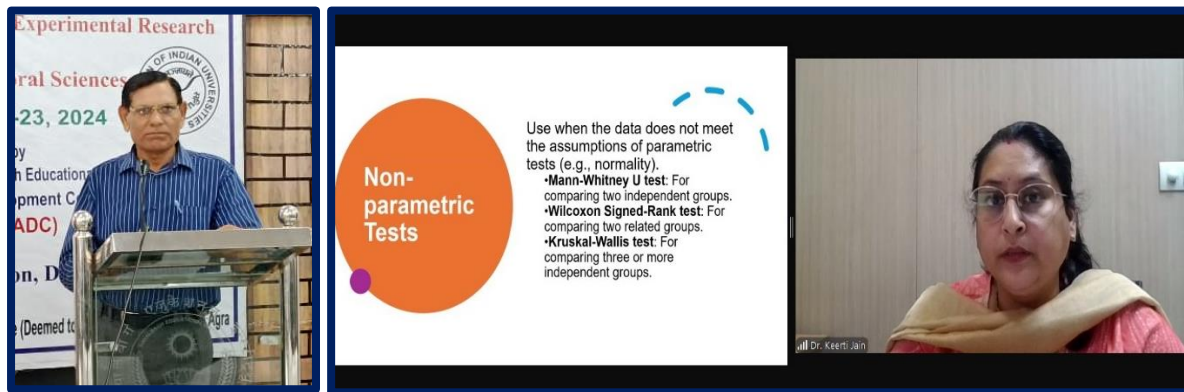


During the second session of day two, Dr. Rajendra Prasad from the Department of Education at the University of Delhi discussed experimental research designs. He highlighted that research designs are fundamental to scientific inquiry, offering a systematic approach to exploring cause-and-effect relationships. Additionally, he emphasized that they provide a framework for addressing problems and creating innovative solutions. Dr. Prasad also emphasized the importance of understanding the limitations and appropriate usage of these research designs.

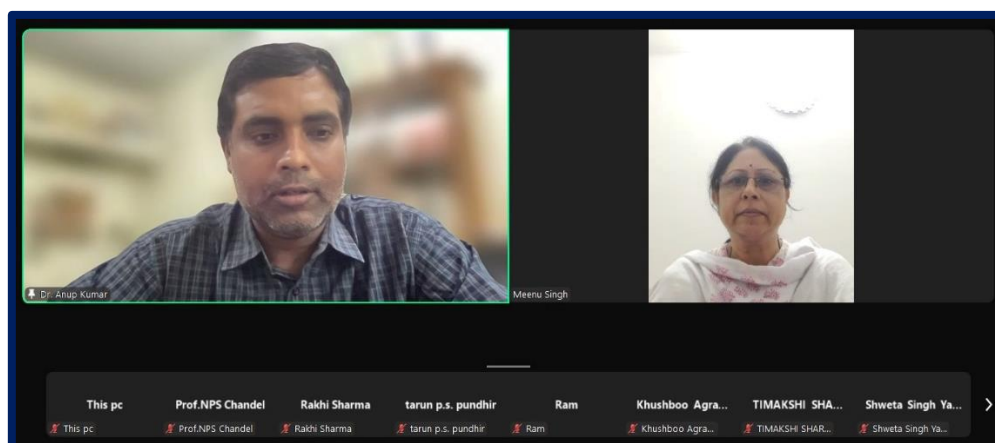
On the third day, Prof. Sona Ahuja from the Faculty of Education at DEI discussed the threats to internal and external validity of experimental research, as well as ethical issues in experimental research. She provided numerous examples to illustrate these threats and suggested that researchers can minimize their impact and



improve the validity of their experimental research designs by being aware of them. She emphasized the importance of adhering to codes and policies for research ethics to protect the dignity, rights, and welfare of research participants. Additionally, she warned about the potential consequences of unethical behavior.



In the subsequent session, Dr. Keerti Jain from the Institute of Management Technology-Centre for Distance Learning (IMT-CDL), Ghaziabad, emphasized the significance of selecting appropriate statistics in accordance with the experimental design. To draw valid conclusions, researchers must carefully choose a presentative sample and utilize suitable statistical methods. Although various statistical software such as SPSS, R, Stata, and SAS are readily available for statistical analysis, the task of selecting the appropriate statistical test remains challenging in ensuring accurate results.



On the fourth day of the workshop, Dr. Anup Kumar, a specialist from the Department of Biostatistics and Health Informatics at the Sanjay Gandhi Postgraduate Institute of Medical Sciences in Lucknow, discussed the importance of formulating research questions and

hypotheses for experimental research. He emphasized that creating well-defined research questions and hypotheses is a crucial aspect of the experimental research process. This approach provides a clear focus for the study and ensures that the results are significant and pertinent.



During the second session, Prof. Ashok K. Srivastava, Former Head of Division of Educational Research and Department of Educational Psychology and Foundations of Education, NCERT, New Delhi, elucidated the significance of Randomization and Control techniques in Experimental research. He underscored the essential nature of randomization and control in ensuring the validity of experimental findings. Throughout his presentation, he expounded on the concepts of randomization and control, elucidating their importance in experimental design, and discussed common techniques employed to implement them.



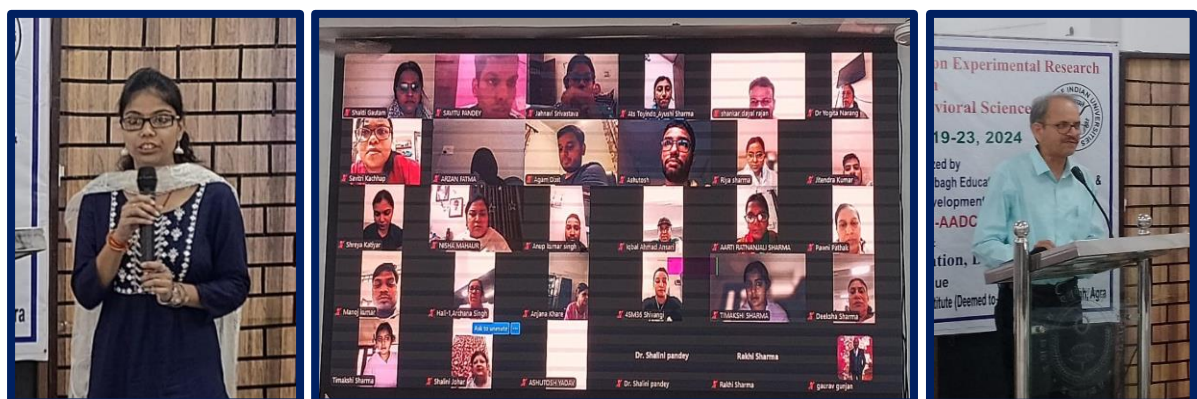
During her presentation, Prof. Kamaljeet Sandhu, the Head of the Department of Psychology in the Faculty of Social Sciences at DEI, provided valuable insights into the meticulous process of planning experimental research and the significance of pilot testing. Stressing the critical nature of thorough preparation, she outlined the essential steps involved in planning experimental research and emphasized the need for thoughtful consideration of various factors.

Moreover, she underscored the pivotal role of pilot testing in ensuring the success of an experiment.

The ten technical sessions were conducted under the supervision of a distinguished panel of chairpersons, which included Prof. N.P.S. Chandel, Prof. Nandita Satsangi, Prof. Savita Srivastava, Prof. Meenu Singh, Prof. P.S. Tyagi, Prof. Lajwanti, Dr. Sona Dixit, Dr. C.L. Singh and Dr. Arti Singh from the faculty of education, DEI.



During the closing session, Prof. Nandita Satsangee, Dean of the Faculty of Education at DEI, extended a warm welcome to the esteemed guests. The valedictory address was delivered by Prof. Veera Gupta, the Honorary Director of Malaviya Mission Teacher Training Centre and a Professor in the Department of Teachers Training and Non-Formal Education at Jamia Milia Islamia, New Delhi.



Dr. Shalini Verma, the co-convenor of the workshop, presented the comprehensive workshop report. Both online and offline participants shared their positive feedback, highlighting the

significant impact of the workshop. Additionally, Prof. NPS Chandel, the convener, provided an evaluation of the statistics about the quiz that was organized during the workshop.



Certificates were then distributed to the participants, followed by a sincere expression of appreciation to the DEI administration, AIU team, resource persons, session chairs, organizing committee members, technical staff, and students for their exceptional teamwork, as acknowledged by Prof. Savita Srivastava. Dr. Priti Sharma, Ms. Rinky Satsangi, Dr. Manu Sharma, Mr. Arjun Chauhan, Mr. Umesh Sone, and the research scholars have demonstrated significant dedication in ensuring the workshop's success. Prof. Jyoti Gogia, the Nodal Office AIU-DEI-AADC, has made invaluable contributions to the workshop's organization.

DEI Advisors

Prof. C. Patvardhan, Director, DEI
Mrs. Sneh Bijlani, Treasurer, DEI
Prof. Anand Mohan, Registrar, DEI

AIU Advisors

Dr. Pankaj Mittal, Secretary General, AIU
Dr. Amarendra Pani, Joint Director & Head, Research Division, AIU
Mrs. Ranjana Parihar, Joint Secretary, Publication & Sales Division, AIU

Programme Convener

Prof. N.P.S. Chandel
Head, Department of Foundations of Education, DEI

Programme Co-convener

Dr. Shalini Verma
Assistant Professor, Department of Foundations of Education, DEI

AIU-DEI-AADC Nodal Officer

Prof. Jyoti Gogia
Department of Economics, DEI

