

**Capacity Building Workshop
On
Statistical Application &
Interpretation using Module
in Hindi**

**(For Research Scholars, Research Guides and
Faculty in Education)
(Under ICSSR Senior Fellowship Project)
September 28-October 12, 2019**



**Venue
SCHOOL OF EDUCATION
DEVI AHILYA VISHWAVIDYALAYA
INDORE**

RATIONALE OF THE WORKSHOP

Quality of higher education provided in the colleges and universities depends to a great extent on the quality of research being conducted by the faculty and students. Quality of research, in turn, is largely influenced by the knowledge and skill base possessed by the research practitioners. University Grants Commission (UGC), an institution mandated by the Government of India for maintaining standards in higher education contemplated various steps to enhance standards in research practices at the university level. For this purpose, UGC through its regulation on Minimum Standards and Procedure for the award of M. Phil. / Ph.D. degree (2009) stipulated a mandatory six-monthly pre-Ph.D. coursework in research methodology. The component of pre-Ph.D. courseware in

Education of most universities, however, does not go much beyond what has already been taught to the students at the Master's level.

The faculty members guiding research too are required to upgrade their knowledge of research methods through various empowerment programs, refresher courses and other online courses/Massive Open Online Courses (MOOCs) such as under the Ministry of Human Resource Development portal, SWAYAM. The present capacity building workshop through a module is a humble attempt in this direction.

ABOUT THE WORKSHOP

Reviews of researches in education reveal a tendency to inflate the number of formulated hypotheses leading to misuse of statistical tests. Further, researchers hardly take care to examine the assumptions underlying the statistical tests they happen to choose for data analysis. Obviously, therefore, the incidence of use of nonparametric tests in the research literature remains at a dismal low. The tests permitting control of alpha error and planned contrasts are rarely used. Studies never report effect size for the tests. This workshop tries to build the needed knowledge and skills among research practitioners through a series of modules in **HINDI** language.

OBJECTIVES OF THE WORKSHOP

After completion of the Workshop, the participants will be able to:

- ✗ Interpret the significance of test statistics using critical value, p-value and confidence interval approaches.
- ✗ Formulate research objectives and hypotheses appropriate to statistical tests used in the study.
- ✗ Run and interpret results of two/ one-tailed tests of hypotheses in two samples designs.
- ✗ Undertake tests of assumptions underlying various statistical tests and managing their violation.
- ✗ Run and interpret the output of planned comparisons and appropriate post hoc tests for one and many-way ANOVA and ANCOVA.

- ✗ Run two independent/ paired samples, non-parametric tests and interpret their results.
- ✗ Conduct the Kruskal Wallis test in SPSS with post hoc comparisons and interpret the output.
- ✗ Calculate and interpret effect size measures like Cohen's d, eta squared and partial eta squared used for various statistical tests.
- ✗ Perform one and k-samples Chi-square test and residual analysis in SPSS.

CONVENER OF THE WORKSHOP

Prof. S. K. Tyagi
ICSSR Senior Fellow
School of Education
Devi Ahilya Vishwavidyalaya, Indore

MODULES TO BE USED IN THE WORKSHOP

1. Approaches to interpretation of test statistics
2. Assumption of normality and managing its violation
3. Effect size: Independent and paired samples t-test
4. Two-tailed and one-tailed t-tests: Independent and paired
5. Planned contrasts and post-hoc tests: One-way ANOVA and ANCOVA
6. Interactional effect: Two-way ANOVA and ANCOVA
7. Nonparametric comparisons: Two independent samples
8. Nonparametric comparisons: K-independent samples
9. Two related samples: Wilcoxon signed-rank test
10. Chi-squares test: Residual analysis

SEATS AVAILABLE

FORTY SEATS are available for the workshop. Seats will be given on first-come first served basis.

REGISTRATION AND LOGISTICS

- There is **no registration fee**.
- Detach the registration form, fill it up and mail a scan copy to the convenor at sktyagi.sk@gmail.com
- If possible, bring laptop with SPSS installed in it.
- Those without personal laptops may use the departmental computers.
- Workshop kit will be provided free of cost.

LAST DATE FOR REGISTRATION

September 21, 2019

TENTATIVE SCHEDULE OF THE WORKSHOP

September 28, 2019

Registration 10:00 AM - 10:30 AM

September 28-October 12, 2019 (Working Days)

Pre Lunch Session 10:30 AM - 01:30 PM

Lunch Break 01:30 PM - 02:00 PM

Post Lunch Session 02:00 PM - 05:00 PM

September 28-October 12, 2019 (Non Working Days)

Pre Lunch Session 09:00 AM - 01:00 PM

Lunch Break 01:00 PM - 01:30 PM

Post Lunch Session 01:30 PM - 03:30 PM

TRAVEL, LODGING AND BOARDING

Outstation participants will arrange their own travel. However, lodging and boarding facilities in the university guest house may be provided on request. The expenditure for the same at a very nominal rate will have to be borne by the participants themselves.

FOR ANY FURTHER QUERY

Contact Person

Prof. S. K. Tyagi

Mobile: 9179753037

**Capacity Building
Workshop
On
Statistical Application & Interpretation using
Module in Hindi
(For Research Scholars, Research Guides and Faculty
in Education)
(Under ICSSR Senior
Fellowship Project)
September 28-October
12, 2019**

Venue:
SCHOOL OF EDUCATION
DEVI AHILYA VISHWAVIDYALAYA, INDORE

REGISTRATION FORM

Name: Mr/Ms/Dr/.....

Designation:.....

University/Institute.....

Academic Qualification.....

Address (O):.....

(R):.....

Phone: (Code)No.....(O)

Mobile.....

Fax: (Code).....No.....

E-mail:

Lodging/ Boarding required: Yes/ No

If Yes, Lodging: From.....To.....

Boarding: From.....To.....

(Signature of the Participant with date)

**Capacity Building
Workshop
On
Statistical Application & Interpretation using
Module in Hindi
(For Research Scholars, Research Guides and Faculty
in Education)
(Under ICSSR Senior
Fellowship Project)
September 28-October
12, 2019**

Venue:
SCHOOL OF EDUCATION
DEVI AHILYA VISHWAVIDYALAYA, INDORE

REGISTRATION FORM

Name: Mr/Ms/Dr/.....

Designation:.....

University/Institute.....

Academic Qualification.....

Address (O):.....

(R):.....

Phone: (Code)No.....(O)

Mobile.....

Fax: (Code).....No.....

E-mail:

Accommodation required: Yes/ No

If yes, Lodging: From.....To.....

Boarding: From.....To.....

(Signature of the Participant with date)