Data Envelopment Analysis (DEA) for Efficiency Studies Training Course

Professional Development Training Course Outline

Category	Research and Data Analysis	**Duration**	5 Days
Base Fee	$1,500 USD	**Delivery Mode**	Online / On-site Hybrid

Course Introduction

In today's data-driven world, the ability to handle sensitive research topics with methodological rigor and ethical precision is vital. Simultaneously, evaluating performance and efficiency using Data Envelopment Analysis (DEA) has become an essential tool in both academia and industry. Data Envelopment Analysis (DEA) for Efficiency Studies Training Course integrates the advanced techniques of conducting qualitative and quantitative research on sensitive subjects—such as health, trauma, human rights, or gender-based violence—with robust efficiency analysis using DEA, an increasingly popular non-parametric method in operations research and economics.

This course equips researchers, analysts, and policy makers with practical skills to conduct ethically sound and statistically valid investigations into delicate issues while leveraging DEA models to benchmark performance in sectors such as healthcare, education, governance, and more. The synergy between ethical sensitivity and analytical accuracy enhances evidence-based decision-making across sectors.

Programme Curriculum

Data Envelopment Analysis (DEA) for Efficiency Studies Training Course

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Course Objectives

1. Understand ethical principles in researching sensitive human-related topics.
2. Apply trauma-informed and culturally sensitive approaches in data collection.
3. Formulate DEA models to evaluate operational efficiency.
4. Differentiate between input- and output-oriented DEA models.
5. Handle missing or confidential data in sensitive contexts.
6. Integrate qualitative findings with quantitative DEA results.
7. Utilize software tools like R, MaxDEA, and DEA Solver.
8. Conduct cross-sector performance comparisons using DEA.
9. Design informed consent frameworks for vulnerable populations.
10. Perform bias checks and data validation in sensitive datasets.
11. Report DEA outcomes to stakeholders with clarity and responsibility.
12. Navigate ethical review processes and IRB compliance.
13. Publish high-quality academic or policy reports from DEA-sensitive research.

Target Audiences

1. Academic Researchers in Social Sciences & Economics
2. NGO Monitoring & Evaluation Officers
3. Healthcare Administrators & Policy Analysts
4. Government Research Officers
5. Development Sector Consultants
6. University Professors and PhD Students
7. Data Scientists and Research Methodologists
8. Ethics Committee and IRB Members

Course Duration: 5 days

Course Modules

Module 1: Ethics in Researching Sensitive Topics

- Understanding ethical frameworks and principles
- Consent and confidentiality protocols
- Cultural and contextual sensitivity
- Navigating institutional review boards (IRBs)
- Risk mitigation and researcher safety
- **Case Study:** Ethical dilemmas in gender-based violence research

Module 2: Designing Research for Vulnerable Populations

- Selecting appropriate research designs
- Sampling techniques for hard-to-reach groups
- Trauma-informed interviewing practices
- Building rapport with participants
- Mitigating re-traumatization risks

- **Case Study:** Researching trauma survivors in conflict zones

Module 3: Data Collection and Protection

- Secure data management systems
- Anonymous and pseudonymous data strategies
- Survey and interview design for sensitive topics
- Mobile and remote data collection ethics
- Handling incomplete or sensitive responses
- **Case Study:** HIV-related data privacy in field surveys

Module 4: Introduction to Data Envelopment Analysis (DEA)

- Basics of efficiency measurement
- Inputs and outputs in DEA models
- CCR and BCC models explained
- Input vs. output orientation
- Strengths and limitations of DEA
- **Case Study:** DEA of healthcare centers in rural regions

Module 5: DEA Modelling with Software Tools

- R, MaxDEA, and DEA Solver walkthrough
- Data formatting and input setup
- Running efficiency computations
- Interpreting efficiency scores
- Visualizing DEA results
- **Case Study:** DEA analysis of university academic departments

Module 6: Linking DEA with Sensitive Research Findings

- Integrating qualitative insights with DEA
- Dealing with data imbalances in DEA
- Adjusting DEA for contextual sensitivity
- Incorporating socio-ethical variables
- Multilevel DEA for policy use
- **Case Study:** Evaluating social care service providers

Module 7: Reporting Results Responsibly

- Crafting accurate, sensitive reports
- Graphical and tabular representation of results
- Policy recommendations and stakeholder communication
- Protecting anonymity in DEA outputs
- Addressing DEA limitations in reports
- **Case Study:** Reporting DEA findings to donors for an NGO

Module 8: Applied Capstone: DEA in Real-World Sensitive Contexts

- Designing and executing a full DEA project
- Ethical proposal drafting
- Peer-reviewed feedback and revision
- DEA plus qualitative reporting
- Stakeholder presentation preparation
- **Case Study:** DEA on gender-inclusivity programs in education

Training Methodology

- Interactive lectures using real-life examples
- Hands-on sessions with DEA software (R, Excel, MaxDEA)
- Group discussions on sensitive topic handling
- Role-plays and simulations on ethical dilemmas
- Guided research project using DEA models
- Peer-to-peer learning and reflective debriefs

Register as a group from 3 participants for a Discount

Send us an email: info@fineskilltrainingcenter.org or call *+254769199797*

Certification

Upon successful completion of this training, participants will be issued with a globally- recognized certificate.

Tailor-Made Course

We also offer tailor-made courses based on your needs.

Key Notes

a. The participant must be conversant with English.

b. Upon completion of training the participant will be issued with an Authorized Training Certificate

c. Course duration is flexible and the contents can be modified to fit any number of days.

d. The course fee includes facilitation training materials, 2 coffee breaks, buffet lunch and A Certificate upon successful completion of Training.

e. One-year post-training support Consultation and Coaching provided after the course.

f. Payment should be done at least a week before commence of the training, to Fineskill Training Center account, as indicated in the invoice so as to enable us prepare better for you.

Upcoming Scheduled Sessions

Start Date	End Date	Location	Price
23 Nov 2026	27 Nov 2026	Online	$1,000
23 Nov 2026	27 Nov 2026	Physical	$1,500
23 Nov 2026	27 Nov 2026	Physical	$3,000
23 Nov 2026	27 Nov 2026	Physical	$3,000
23 Nov 2026	27 Nov 2026	Physical	$6,000
23 Nov 2026	27 Nov 2026	Physical	$4,500

Start Date	End Date	Location	Price
23 Nov 2026	27 Nov 2026	Physical	$6,000
23 Nov 2026	27 Nov 2026	Physical	$6,000

Ready to enroll or request a customized program? Book online or contact us:

Register Online Now

Email: info@fineskilltrainingcenter.com | Website: www.fineskilltrainingcenter.com