

Effective Training for Institutional Researchers in the Application of Statistical Procedures

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Institutional Research has been defined by Saupe (1990) as “research conducted within an institution of higher education to provide information which supports institutional planning, policy information, and decision making”. In 1998 The Association for Institutional Research (AIR) publication *People, Processes and Managing Data* points out that, “the effectiveness of institutional research in supporting an institution’s decision making depends heavily on the availability of usable data. Usable implies that the data must be sufficiently accurate, timely and collected systematically.”

Higher education officials are required to meet accountability expectations to justify the value and effectiveness of their programs. Statistical data on programs at the institutions and student performance will provide college administrators and stakeholders with their real evidence of the success or failure of teaching and learning. Institutional Researchers have experienced increasing need for statistical analyses to guide their planning and evaluation efforts. In fact, they must use data analysis and statistical skills on a daily basis. However, many professionals come to the IR field with diverse backgrounds and differential knowledge of statistics.

An awareness of quantitative data analysis also greatly enhances the ability to recognize faulty conclusions or potentially biased manipulations of the information. A strong need exists to explore how statistical educators can effectively train institutional researchers in the appropriate application of statistical procedures. For years, Mary Ann Coughlin (2002) has provided series of workshops in training Institutional Research professional.

The purpose of this table topic session is to engage the audience to explore the effective way to enhance the talents and skills of IR individuals who plan to implement the application of statistics in their career field. The effectiveness of training is related to fundamental principles of education and effective pedagogy. In the meantime, participants will also learn about the possibilities and limitations of research designs and statistical analyses within IR. In addition, the talk will generate the interest of and promote practical usage for institutional researchers to conduct and interpret inquiries on which sound educational policy and practice can be anchored. As a result of the discussion, participants will gain information in how to prepare for decision-making regarding data collection, analysis, and interpretation. Finally, the talk may foster professional networking and intra-campus collaboration during and after the session. PowerPoint slides and handouts will be used as part of training material, Topics in this talk include sampling distributions, advanced statistical techniques, nonparametric statistics, inference, effect size, and hypothesis testing.

References

Association for Institutional Research (1998). *People, Processes and Managing Data*. Gerald W.

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Coughlin, M. A. (2002). *Training Institutional Research Professional: Teaching A Statistics Course in Six Hours or Fewer, the Art of Teaching*. ICOT56.