

Spring 2012

Ed stats SIG

The Stats Source: Newsworthy Notes from the Ed Stats SIG

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University of Connecticut

Jill Adelson

University of Louisville

Chair's Column

As our conference in Vancouver is fast approaching here are a few reminders:

Our Business Meeting is scheduled for Saturday, April 14 from 6:15 – 7:45pm in the Sheraton Wall Centre, 3rd Level, South Pavillion Ballroom B. Come and join us as Michael Harwell, University of Minnesota, the 2011 Ed Stat SIG Service Award winner will be speaking on "Model Checking in Educational Data Analyses: There and Back Again".

Additionally, the 2012 Ed Stat SIG Service Award winner and Graduate Student Best Paper Award will be announced at the business meeting. Hope to see you there!

Please join us at the Quantitative SIG Social scheduled for Sunday, April 15 from 8pm to 12am at the Bellaggio Café., Convention location, 26 – 1055 Canada Place Way. It should be great fun with food and drink for all!

See <http://maps.google.ca/maps?q=1055+Canada+Place+Way,+Vancouver,+BC+V6C+0C3&oe=utf-8&client=firefox-a&gl=ca&z=16>

Thanks to Walter Leite and Jaehwa Choi of the Structural Equation Modeling SIG for organizing this year's social!

A BIG thanks to this year's Ed Stat SIG Program Chair, Mark Beasley for organizing a terrific program of papers, roundtables, and posters for the SIG! Our Executive Committee had many tasks this year – we keep our executive committee busy! Our appreciation goes to D. Betsy McCoach, Jill Adelson, Bethany Bell, and Chair, Mark Beasley for all your efforts on behalf of the SIG.

Continued. Page 2..



Chair's Column (continued)

Congratulations go to the newly elected 2012-2013 Ed Stat SIG Program Chair: D. Betsy McCoach, University of Connecticut and to the 2012-2013 members-at-large: Jill Adelson, University of Louisville and Holmes Finch, Ball State University. Thank you for your willingness to serve the SIG!

And many thanks to our webmaster and newsletter editor and team from University of Central Florida: Haiyan Bai, Stephen Sivo, Deborah Hahs-Vaughn, and E. Lea Witta whom have done great work consistently designing the Educational Statisticians SIG newsletter and managing the SIG webpage.

And thank you membership for submitting papers, serving on the review panel, and serving as session chairs and discussants – it takes a distribution of participants to create a great meeting!

Janet

Janet Holt
Educational Statisticians SIG
President 2011-2012



Bellagio Cafe

Friday, April 13 – Tuesday, April 17
Vancouver, British Columbia, Canada

“Non Satis Scire: To Know Is Not Enough”

It looks like we have an interesting and thought-provoking meeting shaping up for AERA 2012, thanks to our great slate of submissions. We have three paper sessions on topics of interest to our SIG:

(1) *Alternative Methods for Data Analysis* (Sun, Apr 15 - 12:25pm - 1:55pm at the Sheraton Wall Centre, Third Level - South Pavilion Ballroom A);

(2) *Issues in Clustered Data Structures* (Mon, Apr 16 - 8:15am - 10:15am at the Sheraton Wall Centre, Fourth Level - North Port Alberni)

(3) *Mediation, Ordinal, and Nonlinear Modeling* (Sun, Apr 15 - 2:15pm - 3:45pm at the Sheraton Wall Centre, Third Level - South Pavilion Ballroom A)

We have a fourth Multilevel Modeling session co-sponsored with the HLM SIG.

Additionally, we have three roundtable sessions on *Simulation Studies* (Sat, Apr 14 - 2:15pm - 3:45pm at the Sheraton Wall Centre, Third Level - South Azure) and three posters on *Applied Statistical Analysis of Large-Scale Data* in Poster Session 15 (Mon, Apr 16 - 2:15pm - 3:45pm at the Vancouver Convention Centre, First Level - East Ballroom B)

In addition, Michael Harwell will present “Model Checking in Educational Data Analyses: There and Back Again” at our business meeting on Sat, Apr 14 - 6:15pm - 7:45pm at the Sheraton Wall Centre, Third Level - South Pavilion Ballroom B.



Last, I would like to thank our SIG President, Janet Holt, and several others including Walter Leite and Jaehwa Choi (representing the EdStat & SEM SIGS), Greg Palardy (representing the HLM SIG)and Herbert Ware, Susan Losh, and Scott Thomas (representing the Advanced Studies of National Databases) in helping to coordinate a quantitative SIG social. The quantitative SIG social is on Sunday April 15th from 8 pm to 12 am at the Bellagio Café-Convention Location (<http://www.bellaggiocafe.com/convention/con-index.html>)

Special thanks to Walter Leite for negotiating with Bellagio Café,

Join us for friendship, fellowship, and some quantitative camaraderie!

See you in Vancouver!

Mark

Mark Beasley
Educational Statisticians SIG
Program Chair 2011-2012

Modern Modeling Methods Conference 2012

University of
Connecticut

The Modern Modeling Methods (M³) conference is an interdisciplinary conference designed to showcase the latest modeling methods and to present research related to these methodologies. The second annual M³ conference will be held May 22-23rd, 2012 (with a preconference on May 21st and a post conference on May 24th). Keynote speakers for the 2012 conference include Donald Rubin, Peter Bentler, and Jack McArdle.

Pre-conference workshops: May 21

- An Introduction to Multiple Imputation with Ofer Harel
- Analysis of Longitudinal Social Network Data using RSiena with Tom Snijders

Post-conference workshop: May 24

Cautiously Adding Dynamics to Longitudinal Analyses with Jack McArdle

For more information about the modern modeling conference, see our website, www.modeling.uconn.edu

If you have any questions about the conference, please email D. Betsy McCoach at betsy.mccoach@uconn.edu

"The Modern Modeling Methods (M³) conference is an interdisciplinary conference designed to showcase the latest modeling methods..."

 University of
Connecticut
Neag School of Education



**Modern Modeling Methods
Conference**

MAY 25-26, 2011

 University of
Connecticut
Neag School of Education

When to Use What Research Design

W. Paul Vogt,
Dianne C. Gardner,
and Lynne M.
Haeffele

New York: Guilford
Press, 2012.

Systematic, practical, and accessible, this is the first book to focus on finding the most defensible design for a particular research question. Thoughtful guidelines are provided for weighing the advantages and disadvantages of various methods, including qualitative, quantitative, and mixed methods designs. The book can be read sequentially or readers can dip into chapters on specific stages of research (basic design choices, selecting and sampling participants, addressing ethical issues) or data collection methods

(surveys, interviews, experiments, observations, archival studies, and combined methods).

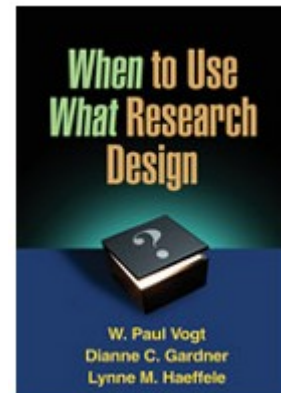
Many chapter headings and subheadings are written as questions, helping readers quickly find the answers they need to make informed choices that will affect the later analysis and interpretation of their data.

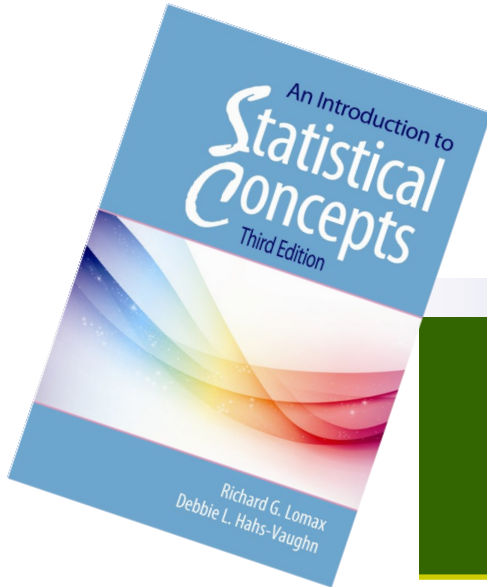
Useful features include:

- Easy-to-navigate part and chapter structure.
- Engaging research examples from a variety of fields.
- End-of-chapter tables that summarize the main points covered.

- Detailed suggestions for further reading at the end of each chapter.
- Integration of data collection, sampling, and research ethics in one volume.
- Comprehensive glossary.

For more details go to
www.guilford.com





An Introduction to Statistical Concepts

"This comprehensive, flexible text is used in both one- and two-semester courses to review introductory through intermediate statistics."

An Introduction to Statistical Concepts (Third Edition)

By Richard G. Lomax and Debbie L. Hahs-Vaughn

This comprehensive, flexible text is used in both one- and two-semester courses to review introductory through intermediate statistics. Instructors select the topics that are most appropriate for their course. Its conceptual approach helps students more easily understand the concepts and interpret SPSS and research results. Key concepts are simply stated and occasionally reintroduced and related to one another for reinforcement. Numerous examples demonstrate their relevance. This edition features more explanation to increase understanding of the concepts. Only crucial equations are included.

In addition to updating throughout, the new edition features:

- New co-author, Debbie L. Hahs-Vaughn, the 2007 recipient of the University of Central Florida's College of Education Excellence in Graduate Teaching Award.
- A new chapter on logistic regression models for today's more complex methodologies.
- More on computing confidence intervals and conducting power analyses using G*Power.
- Many more SPSS screenshots to assist with under-

standing how to navigate SPSS and annotated SPSS output to assist in the interpretation of results.

- Extended sections on how to write-up statistical results in APA format.
- New learning tools including chapter-opening vignettes, outlines, and a list of key concepts, many more examples, tables, and figures, boxes, and chapter summaries.
- More tables of assumptions and the effects of their violation including how to test them in SPSS.
- 33% new conceptual, computational, and all new interpretative problems.

A website that features Power Points, answers to the even-numbered problems, and test items for instructors, and for students the chapter outlines, key concepts, and datasets that can be used in SPSS and other packages, and more.

Reviews

"Lomax and Hahs-Vaughn write clearly. ... Writing statistical results in APA format is great for graduate students. ... The ... changes ... make the book a better teaching tool. ... The level is appropriate for graduate and doctoral students in psychology, sociology, and education. ... The basic terms and concepts are defined and developed clearly, accurately, and in an interesting manner." -

Robert P. Conti, Sr., Mount Saint Mary College, USA

"The sentences are simple, but they are carefully composed to deliver the message accurately and logically. ... Only equations that are essential to the research question are presented and this is helpful in reducing students' statistics phobia. ... SPSS is thoroughly integrated into the text. ... I would seriously consider it for adoption. I use [Gravetter and Keppel's books] ... but I am not satisfied with these two books." -

Feifei Ye, University of Pittsburgh, USA



Statistical Concepts: A Second Course

Statistical Concepts: A Second Course (Fourth Edition)

By Richard G. Lomax and Debbie L. Hahs-Vaughn

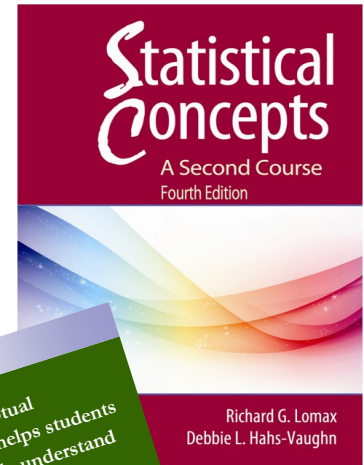
Statistical Concepts consists of the last 9 chapters of *An Introduction to Statistical Concepts, 3rd ed.* Designed for the second course in statistics it is one of the few texts that focuses just on intermediate statistics. The flexible coverage allows instructors to select the topics that are most appropriate for their course. Its conceptual approach helps students more easily understand the concepts and interpret SPSS and research results. Key concepts are simply stated and reintroduced and related to one another for reinforcement. Numerous examples demonstrate their relevance. This edition features more explanation to increase understanding of the concepts. Only crucial equations are included.

In addition to updating throughout, the new edition features:

- More on computing confidence intervals and conducting power analyses using G*Power.
- Many more SPSS screenshots to assist with understanding how to navigate SPSS and annotated SPSS output to assist in the interpretation of results.
- Extended sections on how to write-up statistical results in APA format.
- New learning tools including chapter-opening vignettes, outlines, and a list of key concepts, many more examples, tables, and figures, boxes, and chapter summaries.
- More tables of assumptions and the effects of their violation including how to test them in SPSS.
- 33% new conceptual, computational, and *all* new interpretative problems.

Reviews

"Lomax and Hahs-Vaughn write clearly. ... Writing statistical results in APA format is great for graduate students. ... The ... changes ... make the book a better teaching tool. ... The level is appropriate for graduate and doctoral students in psychology, sociology, and education. ... The basic terms and concepts are defined and developed clearly, accurately, and in an interesting manner." - Robert P. Conti, Sr., Mount Saint Mary College, USA



"The sentences are simple, but they are carefully composed to deliver the message accurately and logically. ... Only equations that are essential to the research question are presented and this is helpful in reducing students' statistics phobia. ... SPSS is thoroughly integrated into the text. ... I would seriously consider it for adoption. I use [Gravetter and Koppell's books] ... but I am not satisfied with these two books." - Feifei Ye, University of Pittsburgh, USA

Price: \$69.95

Paperback: 544 pages

Published: February 2012

ISBN: 978-0-415-88007-7

Publisher:
Routledge
Academic



Publication! Publication!! Publication!!!

The Journal of Experimental Education (JXE) publishes methodological and applied research studies that use the range of quantitative and qualitative methodologies found in the behavioral, cognitive, and social sciences. Published studies address all levels of schooling and various educational contexts, including public and private education in the United States and abroad. The journal's audience includes research methodologists, applied researchers, and practitioners interested in advancing educational research and improving teaching, learning, and schooling.

The journal is divided into three sections: **Learning, Instruction, and Cognition** (editor-in-chief: Rayne Sperling, Penn State); **Motivation and Social Processes** (executive editor, Lynley Anderman: Ohio State University); and **Measurement, Statistics, and Research Design** (executive editor: Debbie L. Hahs-Vaughn, University of Central Florida). Recent articles published through the measurement, statistics, and research design section of the journal include:

Leite, W. L. & Stapleton, L. M. (2011). Detecting growth shape misspecifications in latent growth models: An evaluation of fit indexes. *Journal of Experimental Education*, 79 (4), 361-381.

Romano, J. L., Kromrey, J. D., Owens, C. M., Scott, H.M. (2011). Confidence interval methods for coefficient alpha on the basis of discrete, ordinal response items: Which one, if any, is the best? *Journal of Experimental Education*, 79 (4), 382-403.



"The Journal of Experimental Education (JXE) publishes methodological and applied research studies."

Journal of Experimental Education, 79 (4), 402-428.

JXE's Impact Factor.

According to Journal Citation Reports, in 2010 JXE was ranked 26 of 184 (top 15%) of all education and educational research journals with an impact factor of 1.633. In terms of five year impact, JXE is ranked 33 of 177 (top 19%) of all education and educational research journals with an impact factor of 1.703. In relation to other statistical methodology journals, JXE is the *second ranked* educational research journal, ranking just one behind the *Journal of Education and Behavioral Statistics* (which was ranked 25 of 184 with a one-year impact factor of 1.644 and five-year impact factor of 2.474).

Submission of Manuscripts.

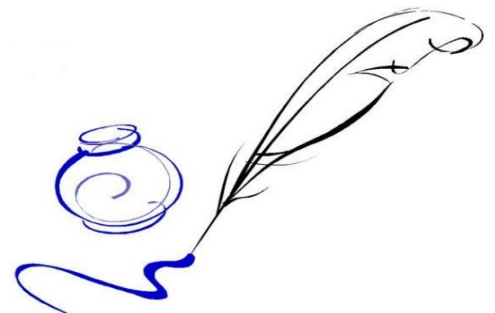
To submit a manuscript, follow the directions at <http://mc.manuscriptcentral.com/jxe>. Include with your submission a statement that the manuscript has been sent only to *JXE* and that it

French, B. F. & Finch, H. (2011). Model misspecification and invariance testing using confirmatory factor analytic procedures.

is not under consideration for publication elsewhere. Manuscripts must be no longer than 35 pages, double-spaced, including the abstract, notes, and references. Manuscripts that do not comply with instructions specified here will be returned to the author immediately.

The Review Process. At least two consulting editors with expertise in an appropriate field blind review each manuscript. An editor reviews their recommendations and has final authority regarding acceptance and rejection. If editors suggest revisions, they outline them in a decision letter, which also contains information about submitting a revised manuscript. The review process takes approximately 3–4 months.

Additional details about the journal can be found at <http://www.tandf.co.uk/journals/authors/vjxeauth.asp>



Survey Research Office Director University of Illinois Springfield

The University of Illinois Springfield Survey Research Office, located in the Center for State Policy and Leadership, seeks to hire a director. The Director is responsible for the overall administration of the Office, including administration of the fiscal, human and physical resources of the Office, and is responsible for the acquisition and successful implementation of survey projects. The director oversees the design and execution of surveys for state and local government agencies and nonprofit organizations. An important part of the role is cultivating opportunities and obtaining funding (grants/contracts) for the use of the Survey Research Office's expertise by external organizations that need objective data to inform their decisions. The director also manages surveys as a part of research projects undertaken by university faculty and staff, authors or co-authors reports and articles conveying the results of the Office's surveys, and partners with public policy research centers at other universities in carrying out larger scale surveys on public affairs topics. The director is a full-time professional (non-faculty) employee who reports to the executive director of the Center for State Policy and Leadership. (See <http://cspl.uis.edu/SurveyResearchOffice/>.)

Required qualifications include (1) a master's degree in relevant field, with courses in methodology/research methods and statistics/quantitative analysis, (2) a minimum of three years conducting surveys, and (3) demonstrated experience in either administration/management of survey projects, including supervision of staff, or proposal development/project budgeting and monitoring. A Ph.D. in a relevant discipline (e.g., political science, sociology, other social science, statistics) and prior substantial experience working in a university environment are preferred.

Annual salary based on qualifications, plus generous University benefits package. To apply, go to <https://jobs.uis.edu/default.cfm?page=job&jobID=17635> and upload a letter of interest, current resume, and contact information for three current professional references (including telephone numbers and email addresses). Screening of applications will begin March 30, 2012 and will

continue until the position is filled. Anticipated start date is July 1, 2012.

Campus: Located in the state capital, the University of Illinois Springfield is one of three campuses of the University of Illinois. The UIS campus serves approximately 5,000 students in 23 undergraduate and 21 graduate degree programs and has a special emphasis on public affairs. See www.uis.edu for more information.

UIS is an affirmative action/equal opportunity employer with a strong institutional commitment to the recruitment and retention of a diverse and inclusive campus community – women, minorities, veterans, and persons with disabilities are encouraged to apply.

Have information to share in the Ed Stats newsletter?

Do you have information that you would like to share with your colleagues in the Educational Statisticians SIG via the newsletter? We are looking for the following types of news:

- Upcoming conferences and calls for proposals
- Calls for authors and other contributions
- Book reviews and other resources of interest to statisticians as well as graduate students enrolled in statistics
- Other worthy contributions that are of value to your colleagues

Contributions should be sent in a **Word** document to the newsletter co-editors:

Debbie.Hahs-Vaughn@ucf.edu

Haiyan.Bai@ucf.edu

Stephen.Sivo@ucf.edu

Lea.Witta@ucf.edu



AERA Fellowships & Grants Programs

Information on AERA's Fellowships and Grants Programs can be found at <http://www.aera.net/fellowships/?id=57>. From this site, details and related links for more information on the following programs can be accessed:

- AERA-AIR Fellows Program
- AERA-ETS Fellowship Program in Measurement
- Minority Fellowship Program in Education Research
- AERA Grants Program