



President's Message

Warm greetings CIRPA Members!

With June here, the Local Arrangements and Program Committees for this October's conference in Halifax are working hard to bring you a great professional development experience. Thanks to these committees for their hard work to date and for the CIRPA members who have submitted proposals. We appreciate your contribution. More conference details are available in this newsletter and on our website. Also within this newsletter is the opportunity to look at Neil Chakraborty's crystal ball and see the future of institutional research. Thanks Neil for raising some interesting points!

June is also election time. Our Board will have a new President, Vice-President, Treasurer and Members-at-Large this year. We have also started a renewal of our Strategic Plan 2010-2015 and your input will be involved over the next year with our target being a new plan for you at the 2016 Annual General Meeting. In this newsletter, you can read more about Stephanie McKeown, currently a Member-at-Large on the CIRPA Board. Thanks for the article Stephanie!

I would also like to take this opportunity to remind you of our CIRPA awards and to encourage you to participate. You will have received messages about the Outstanding Service Award and the Best Practice Award. The Outstanding Service Award recognizes members who contribute through their work on the Board. These members have made CIRPA what it is today—a strong national community of institutional researchers and planners. We feel it is important to recognize their contributions, so if you know of someone who you feel deserves such recognition, please nominate them! The Best Practice Award recognizes strong, unique and/or cutting edge practice at an institution. If your institution is doing something out-of-the-ordinary, please consider submitting an application. If you know of an institution that has a "best practice", encourage them to submit an application or let me know (sshultz74@gmail.com) and I will contact them.

Enjoy your summer and I hope to see you in Halifax in October.

Sharon Schultz, President



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2015 CIRPA Conference in Halifax, Nova Scotia

At the Helm: The Role of Institutional Research and Planning in a Changing Post-Secondary Education Environment

The Canadian Institutional Research and Planning Association (CIRPA-ACPRI) is hosting its 24th annual conference in Halifax, Nova Scotia on October 25 to 27, 2015. Conference Co-Chairs, Aimee Lyons and Yuqin Gong cordially invite you to come to Canada's Ocean Playground to share and learn!

Aimee Lyons

2015 CIRPA Local Arrangements Chair

Yuqin Gong, PhD

2015 CIRPA Program Chair

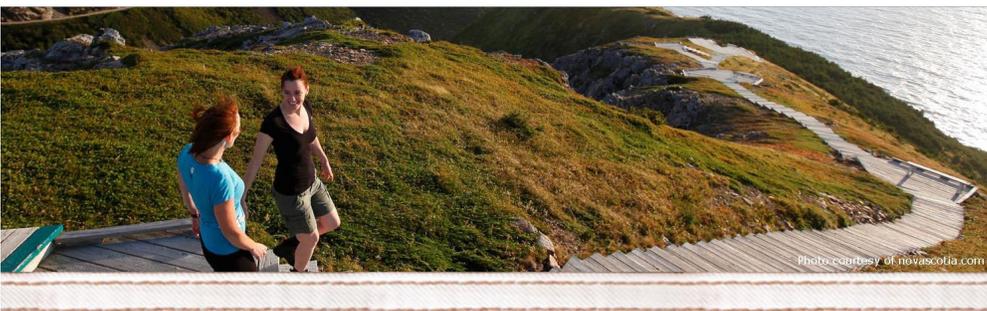
Accommodations

The **Prince George Hotel** in the heart of downtown Halifax. Stay on property and make dinner reservations at Gio restaurant, rated one of "Canada's best restaurants" or enjoy relaxing on their patios. The downtown location puts you in the center of it all with access to shopping, night life, galleries, theatres, museums, public gardens and walking distance to the waterfront.

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Come and discover what visitors have known for centuries—Halifax is a city you will not soon forget.



For more information visit:
Destination Halifax

Getting to Know the CIRPA Board:

Stephanie McKeown,
Member-at-Large
(UBC, Okanagan Campus)



Q1: What do you love most about your job?

I love the people I work with and the accomplishments that we have achieved together. I feel fortunate to work with staff and faculty members who come from a variety of professional backgrounds, and who are passionate about working together to further enhance our university community. As is true for many IR offices, our work varies greatly throughout the year, which I feel makes our jobs quite exciting!

Q2: What is the best advice you have received or given about working in Institutional Research/Planning?

The best advice I've ever received is to say 'no' or 'not at this time,' and to understand the boundaries of what I'm able to achieve in a given timeline with the resources available. This is very difficult to achieve, particularly in our careers where we get asked to participate in many different projects across the institution and sector, which are all very interesting and important. In our unit, we have identified a strategic vision and goals that we use to help prioritize incoming requests. Essentially, the advice to share is that it's okay to set clear boundaries and stick to them as much as possible, as well as do fewer things and do them well. Although, I'm the first to admit it is easier said than done!

Q3: What has been your most positive experience with CIRPA?

My first CIRPA conference was in Regina in 2013, where I found the quality of the conference sessions to be excellent and I really enjoyed meeting and speaking with new colleagues. I was fortunate to sit on the Executive Board this past year as a Member-at-Large and I have thoroughly enjoyed learning about the planning that goes in to our annual conferences and for the future of this association. I suppose my most positive experience has been able to engage with such dedicated individuals, who are dedicated to their institutions, the profession of institutional research and planning, and to building and enhancing our national presence.

Q4: How would you explain what you do for a living to someone who is not familiar with Institutional Research/Planning?

I have worked in institutional research for over 20 years and I still don't know how to describe what I do for a living. When asked, I tend to lean towards describing our role as using research and analysis to achieve three main goals: to support campus-wide planning, to strengthen student learning, and to promote a better understanding of the nature and quality of education at our campus. This is when my family members' eyes glaze over!

Beyond Counting Data: It's How We Interpret Data that Counts

by Stephanie McKeown, MA, PhD
Director—Okanagan Planning and Institutional Research
(UBC, Okanagan Campus)

"Creating knowledge involves much more than sharing data."
– Earl & Fullen, 2003

One of the more common phrases that I heard at the 2014 CIRPA conference was, "evidence-based decision-making," which was followed by discussions about how we, as institutional researchers, can best support this type of decision-making process. In a similar vein, the 2013 spring issue of *New Directions for Institutional Research* focused on the complexities of decision-making in a more global higher education landscape, and argued that institutional researchers are in unique positions to assist efforts in responding to the challenges faced by our institutions. The authors in that issue suggested that the demand for basic reporting and 'number crunching' from offices of institutional research is being reduced, and instead there is a greater emphasis on providing support to the process of strategic thinking in higher education. But these conversations have left me wondering about the term, "evidence-based decision-making," as well as its practical implications for institutional researchers.

I recently encountered a definition of the term in a medical article on evidence-based medicine, which described the basic concept of "evidence-based decision-making" as decisions that are grounded in a synthesis of both internal and external evidence (Porzolt et al., 2003). These authors acknowledged that there are many different sources of internal evidence, including the knowledge we acquire through formal education and training, the general experience we accumulate in our day-to-day work, and the specific experience gained from working with our colleagues and senior administrators. Conversely, external evidence is collected and determined through research. Thus, what defines a decision as "evidence-based" is the explicit use of valid external evidence combined with internal evidence (Porzolt et al., 2003).

The term 'valid' in connection with external evidence made me pause a moment. How do we know if the evidence is valid? In its contemporary use, validity theory is focused on the interpretations or conclusions drawn from the outcomes rather than determining that the actual data (or measures) are valid (Borden & Young, 2008; Zumbo, 1998). Measurement validation involves a process of first interpreting and creating meaning from the data, followed by translating the data into relevant information, and finally, translating that information into knowledge in a timely manner that can be used to inform planning, decisions or actions (Ercikan & Barclay McKeown, 2007). In very basic terms, when researchers are interested in a particular phenomenon, they may wish to observe and measure that phenomenon. In the context of institutional research we need to be concerned with whether we have confidence in the inferences made and conclusions drawn from our findings

that will be used to guide and inform high stakes discussions and decisions appropriately.

Over the last two decades there has been a renewed discussion about the overall theory of validity and the process of validation as an exercise in establishing evidence to support inferences made based on findings, rather than considering a proliferation of types of validity evidence (Zumbo, 1998, 2007). The Standards for Educational and Psychological Testing (American Educational Research Association [AERA], American Psychological Association [APA], National Council on Measurement in Education [NCME], 1999) state that validity has to do with an investigation of threats and biases that can weaken the meaningfulness of the research. Thus, the validation process involves asking questions that may threaten the conclusions drawn and inferences made from the findings, to consider alternate answers, and to support the claims made through the integration of validity evidence, including values and consequences, within a unified framework. This modern approach to validity signifies validation as an ongoing process because new knowledge and understanding can influence interpretations of the findings, and may identify the need for more evidence to support such interpretations (Kane, 2006).

More recently, Kane (2013) further described the argument-based approach to validation that is focused on the plausibility of the conclusions drawn from research findings. From this perspective, Kane (2013) offered eight principles regarding the validation process that should be considered in providing validity evidence that goes beyond making interpretations. Using these principles, he outlines that the process of validation should include an examination of how well the evidence supports the claims being made from the evidence used, the types of decisions that will be made based on the interpretations, and a consideration of the potential negative consequences as a result of these interpretations or conclusions. Thus, the process for determining valid external evidence does not begin once the measure or evaluation has been administered and data have been collected, but rather the process of validation continues throughout all stages of the measurement or research study. All inferences about observations collected during the research process must be related back to, and derive their validity from, the conditions and contexts in which the observations occurred, including design, administration, analysis, and reporting.

I believe that this is where we come in: institutional researchers are well-positioned to be the interpreters at our institutions with an increased focus on the plausibility of the conclusions drawn from the evidence. Competing demands on existing resources have led senior leaders at our universities, colleges and institutes to rely more heavily on evidence to inform their decisions and proposed solutions or actions (Taylor, Webber & Jacobs, 2013). Today we are inundated with data, and learning to make valid interpretations of these data and findings is a complex process. There seems to be an implicit assumption that our senior administrators are data literate, yet

research suggests otherwise (Fullen, 2001; Earl & Fullen, 2003; Earl & Katz, 2008). When interviewed about using data to inform their decision-making process in schools, many senior administrators acknowledged that they struggled in understanding the vast amount of data put before them. Although some felt comfortable with making sense of the data, many others admitted feeling anxious with their ability to interpret data well enough to translate them into useable knowledge. As Earl and Fullen (2003) argued, using data wisely for supporting decisions in schools involves more than sharing the numbers with administrators. It involves a process of interpretation, which involves asking questions that may threaten the conclusions drawn, and interpreting the evidence within context to create appropriate and valid meaning (Earl & Fullen, 2003).

References

- American Educational Research Association, American Psychological Association, & National Council on Measurement in Education. (AERA, APA, & NCME: 1999). *Standards for Educational and Psychological Testing*. Washington, DC: American Psychological Association.
- Borden, V. M. H. & Young, J. W. (2008). *Measurement Validity and Accountability for Student Learning*. *New Directions for Institutional Research: Assessment, Supplement*, 2007, 19-37.
- Earl, L., & Fullen, M. (2003). *Using Data in Leadership for Learning*. *Cambridge Journal of Education*, 33, 3, 383-394, DOI: 10.1080/0305764032000122023.
- Earl, L., & Katz, S. (2008). *Leading Schools in a Data Rich World*. Ontario Institute for Studies in Education.
- Ercikan, K., & Barclay McKeown, S. (2007). *Design and Development Issues in Large-Scale Assessments: Designing Assessments to Provide Useful Information to Guide Policy and Practice*. *Canadian Journal of Program Evaluation*, 22, 53-71.
- Fullan, M. (2001). *Leading in a Culture of Change*. San Francisco: Jossey-Bass.
- Kane, M. (2006). *Validation*. In R. Brennan (ed.), *Educational Measurement*. (4th ed.). Westport, Conn.: American Council on Education/Praeger.
- Kane, M. T. (2013). *Validating the Interpretations and Uses of Test Scores*. *Journal of Educational Measurement*, 50, 1-73. DOI: 10.1111/jedm.12000
- McLaughlin, G. W., & Howard, R. D. with Cunningham, L. B., Blythe, E. W., & Payne, E. (2004). *People, Processes, and Managing Data: Second Edition*. Association for Institutional Research: Tallahassee, FL.
- Porzolt, F., Ohletz, A., Thim, A., Gardner, D., Ruatti, Hl., Meier, H., Schlotz-Gorton, N., & Schrott, L., with (2003). *Evidence-based decision making – the six step approach*. *Evidence-Based Medicine*, 8, 165-166.
- Ryan, J. F., & Crisp, G. (Editors). *Special Issue: Global Issues in Institutional Research*. *New Directions for Institutional Research*, 2013, 157, 1-90.
- Taylor, B. J., Webber, K. L., & Jacobs, G. J. (2013). *Institutional Research in Light of Internationalization, Growth, and Competition*. *Special issue: Global Issues in Institutional Research*. *New Directions for Institutional Research*, 2013, 157, 5-22.
- Zumbo, B. D. (Ed.) (1998). *Validity theory and the Methods Used in Validation: Perspectives from the Social and Behavioral Sciences*. *Special issue of the journal. Social Indicators Research: An International and Interdisciplinary Journal for Quality-of-life Measurement*, 45, 1-3, 1-359.
- Zumbo, B.D. (2007). *Validity: Foundational Issues and Statistical Methodology*. In C.R. Rao and S. Sinharay (Eds.) *Handbook of Statistics*, 26, *Psychometrics*, (pp.45-79). Elsevier Science B.V.: The Netherlands.
- Zumbo, B. D. (2009). *Validity as Contextualized and Pragmatic Explanation, and Its Implications for Validation Practice*. In Robert W. Lissitz (Ed.) *The Concept of Validity: Revisions, New Directions and Applications*, (pp. 65-82). Information Age Publishing, Inc.: Charlotte, NC.

Crystal Gazing the Future of Institutional Research

by Neil Chakraborty
(University of Toronto Scarborough)

As the Institutional research discipline in Canada reflects on a few top trends that might affect how it will play out in future, big data and analytics come to the mind. Speculation on the future of IR is indeed a fascinating exercise and will not be complete without foreseeing the implication of big data and analytics. As recent reports in McKinsey suggests, the amount of data collected in organizations has exploded in exponential rates, as well as the analysis of large data sets or 'big data', and the ability to make sense and derive insights from these sources will become a key competitive advantage, resulting in growth and innovation. Higher education institutions are no different – they have been collecting more data than ever before on a variety of student and institutional measures. What will that mean for IR staff and researchers? There are at least a couple of key areas where volume, variety, and velocity of the data will have a substantial impact on the field.

First and foremost, we are likely to witness more and more universities and colleges moving to visual dashboards and analytics tools that monitor on a real-time basis ongoing KPIs such as enrollment, accreditation, effectiveness, research, and financial metrics. Some of these applications will utilize advanced algorithms, machine learning, and predictive models to drive strategic outcomes like student success and engagement. The analytics behind the data have the power to revolutionize student achievement, help instructors better connect with the students, and boost enrolment and learning.

Secondly, the eventual reality of being dependent and reliant on more varieties of structured and unstructured data will entail new challenges in terms of upgrading skills and hiring those people who have appropriate large dataset analysis skills. As educational institutions invest in user friendly analytical tools, gaining expertise in those applications will be critical. At times, organizations might want their IR staff to be invested in those applications but at



the core of all the competencies is the ability to use data, statistical analyses, or predictive modeling to harness unique insights. IR individuals would be expected to don the hat of 'data scientists' and run statistical and probabilistic models, to the extent of mining and gleaning insights from unstructured data like that of social media.

Despite the hype and hoopla over the new age big data and other tools, institutions have some way to go before we witness universal adaption of analytics across the length and breadth of Institutional Research. We can rest easy for now while we still debate efficacy and utility of analytics in IR. Sooner or later we might have to join the bandwagon, so the earlier we start thinking about it the better. Undisputedly, this has the potential to free the institutional researchers from mere data collection and reporting unit to more of strategic consultants providing actionable analyses and advice to the education community.

Submit your article for the next CIRPA Newsletter

Article submission deadline is November 30, 2015 for the February 2016 publication.

Contact cirpa.editors@gmail.com.