



Creating Connections 2013 Biennial Regional Conference May 10 - 11, 2013

300 participants attended the third biennial Creating Connections conference from May 10 to 11, 2013 at the University of British Columbia. The event featured a wide range of topics on gender diversity. Keynote speakers included:

- The Role of Gender in Science Communication
 - Moderator Dr. Jennifer Gardy (Senior Scientist at the BC Centre for Disease Control, & recurring guest host for Daily Planet)
 - Bob McDonald (Host of CBC Radio One's Quirks and Quarks)
 - Dr. Carin Bondar (Host for Discovery International & blogger for Scientific American)
 - Cam Cronin (Public Programmer, HR MacMillan Space Centre)
- Dr. Roberta Bondar (the world's first neurologist in space & Canada's first female astronaut)
- Anna Tudela (Vice-President of Regulatory Affairs and Corporate Secretary, Goldcorp Inc.)
- Dr. Amiee Chan (CEO, Norsat)

Attendees engaged in meaningful dialogue about the participation of women in science, engineering and technology through interactive workshops, networking sessions and keynote speeches. Beyond networking, community building, and access objectives, the conference was also used as a case study to determine how effective this type of activity can be at improving occupational self-efficacy - a strong predictor of career persistence - and whether we can effect a measurable change in someone's awareness of the value of gender diversity in the technical workplace.

The Creating Connections conference resulted in immediate, statistically significant ($P < 0.001$) positive changes for both participant's occupational self-efficacy (indicating career persistence), and their awareness of the value of gender diversity. A six month follow-up suggested that a change in awareness of the value of gender diversity was sustained ($P < 0.05$), but self-efficacy changes did not persist.



Participants network and enjoy refreshments following "The Role of Gender in Science Communication."



Dr. Elizabeth Croft and Jennifer Pelletier facilitate an interactive session on diversity in the workplace.

Financial Report	Revenue	
	Registration	\$12,140
Sponsorship	\$43,300	
Subtotal	\$55,440	
Expenses		
Speakers	\$14,500	
Travel Subsidies	\$2,680	
Catering and Venue	\$23,540	
Rentals	\$2,110	
Kid's Program	\$500	
Printing & Admin	\$2,060	
Student Staff	\$6,000	
Professional Staff	\$1,700	
Subtotal	\$53,090	
<i>Carry-forward</i>	<i>\$2,350</i>	

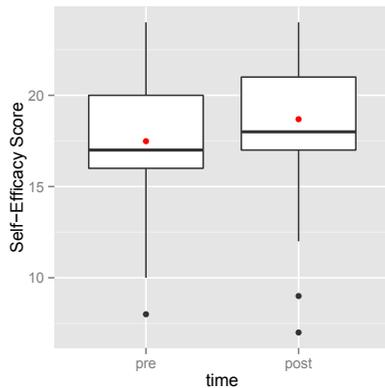


On Measurement

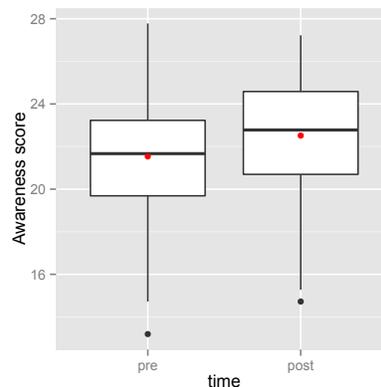
To measure self-efficacy, WVEST chose to use an adapted version of the scientifically validated Rigotti, Schyns, and Mohr's (2008) Occupational Self-Efficacy survey. A literature review did not, however, yield a test for measuring a person's awareness of the value of gender diversity in the technical workplace. Recognizing a need we could fill, we designed a set of 18 short questions targeting three facets of awareness: action, empathy, and knowledge. These questions were then validated through testing.

Both surveys were administered before and after the conference. A follow-up survey was conducted six months after the conference. This research, and the instrument as a whole, will be published in 2014, and presented at CCWESTT 2014.

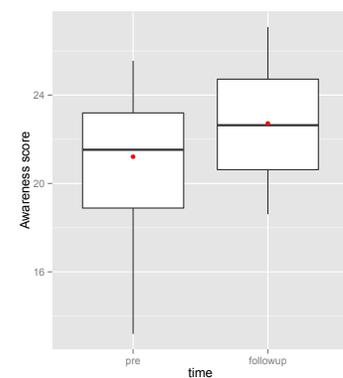
As shown below, the Creating Connections conference resulted in statistically significant ($P < 0.001$) positive changes for both participant's occupational self-efficacy (indicating career persistence), and their awareness of the value of gender diversity. A six month follow-up suggested that a change in awareness of the value of gender diversity was sustained ($P < 0.05$), but self-efficacy changes did not persist.



The Self-Efficacy Survey is scored out of 24 points.
Pre-event average: 17.5
Average increase: +1.27 CI: (1, 1.54)
Statistically significant? Yes, $P < 0.001$



The Awareness Survey is scored out of 30 points.
Pre-event average: 21.5
Average increase: +0.97 CI: (0.47, 1.47)
Statistically significant? Yes, $P < 0.001$



The Awareness Survey is scored out of 30 points.
Pre-event average: 21.5
Follow-up average increase: +1.46 CI: (0.23, 2.69)
Statistically significant? Yes, $P < 0.05$

How to read a box-and-whiskers plot:

- The quartiles of the scores are represented by the area above the box, the top half of the box, the bottom of the box, and the area below the box;
- The box illustrates the experience of half of the respondents, while the whiskers show the extremes;
- The movement of the line shows the change in the median score;
- The movement of the red dot shows the change in the average score.

Discussion:

The conference evaluation was administered as a pre- and post- test. A total of 153 responses were collected out of 300 participants, a response rate of about 50%. Because our inference is centered on the question, "On average, did attending the conference create positive change for the conference participants," finite population inference is used. Taking the finite population inference approach allows us to factor in the appropriate amount of confidence brought by a 50% response rate, done by reducing the sample variance used in a paired t-test by a finite population correction factor that takes account of the representativeness of sample score.

The follow-up evaluation received a total of 32 responses. The change in average increase for the awareness measure is significant, but caution must be used due to the small sample size, bias from self-selection, and as the same data group was used for multiple characteristics. Further study on persistence of effects is warranted.

Thank you to the sponsors of Creating Connections 2013:

Hatch, UBC Faculty of Applied Science, UBC Faculty of Science, SFU Faculty of Applied Sciences, Seastar Solutions, Goldcorp, UBC Vivien M. Srivastava Memorial Endowment Fund, Genome British Columbia, UBC Okanagan School of Engineering, UBC Chemical and Biological Engineering, ICICS, UBC Mechanical Engineering, UBC Department of Physics and Astronomy, UBC Alumni Affairs, the Association of Professional Engineers and Geoscientists of British Columbia, The Langley Concrete Group, TRIUMF, Applied Science Technologists and Technicians of British Columbia, UBC Department of Statistics.