ORIGIN

This instrument was developed to measure public awareness of gender diversity (awareness-bdg) by Vivian Meng, Dr. Elizabeth Croft and Jennifer Pelletier. Survey items were generated in consideration of practicality, transferability, and sensitivity. They were reviewed first by a panel of experts, and then by end-users in a pilot study. To validate the instrument, we conducted studies with volunteer participants to assess the instrument's internal reliability, construct validity, test-rest reliability, and sensitivity to change. Studies were approved by UBC Behavioural Ethics Board.

HOW TO USE

The instrument can be found at the end of this document. It should be administered in a pre-post comparison, or as a pre-follow-up comparison. Note that the pre administration should take place before the participant encounters any programming (i.e. before a workshop session begins).

IDENTIFIER

To match pre, post and follow-up responses from the same individual, we designed a self-generated identifier section for the instrument. In this section, participants are asked to volunteer a number of pieces of information about oneself without divulging his or her identity. To preserve survey length, we chose a medium-length self-generated identifier code, containing the following seven components: gender identity, birth month, middle initials, year of graduation from high-school, first three letters of father's first name, first three letters of mother's first name, and last four digits of primary phone number.

When comparing the matches, we used the Levenshtein similarity function (Borg, 2013) which produced a value between 0 and 1 as an indication of degree of similarity (see scoring instructions for details). As an example of the matching process, we compared a self-generated code from the post-event surveys against all self-generated identifiers from the pre-event surveys using the Levenshtein similarity function; the pre-event identifier that had the highest similarity value was taken as the match. To avoid false matches, we required a minimum similarity of 0.6 before a match was declared. The minimum similarity requirement was strict enough that a manual inspection of declared matches showed no sign of false matches.

For use with a younger audience, you could omit the high school graduation year from the identifier. For same-day audiences when you do not intend to follow up at a later date, you can apply a random identification number sticker to the back of name tags as participants arrive.

SCORING

The instrument contains items on three sub-scales – knowledge (max 18), action (max 8), and empathy (max 24). A weighted total score is calculated by rescaling each of the 3 subcomponents (action , empathy, and knowledge) such that each contributes 10 marks to the total score. The table on the following page indicates which sub-scales each item contributes to.

	Sub-Scale	Score for Response				
		1 Strongly disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly agree
I am likely to attend gender diversity workshops in the future.	Action	0	1	2	3	4
Companies should not actively promote gender diversity in the workplace.	Empathy	0	1	2	3	4
Companies should spend more resources toward creating a gender diverse workplace.	Empathy	0	1	2	3	4
Within my current knowledge, I know where to find information on how I can help advance gender diversity.	Action	0	1	2	3	4
Personal level	Empathy	0	1	2	3	4
Interpersonal level	Empathy	0	1	2	3	4
Corporate level	Empathy	0	1	2	3	4
National level	Empathy	0	1	2	3	4

*All items in the table below are scored on the **knowledge** sub-scale:*

	Yes	No	Don't know		Yes	No	Don't Know
Access to foreign markets	0	2	1	Solution to skill shortages	2	0	1
Access to a broader talent base	2	0	1	Enhanced market development	2	0	1
Increase in innovation potential	2	0	1	Stronger financial performance	2	0	1
Increase in cash reserves	0	2	1	Greater return on human resource investment	2	0	1
Decrease in cost of staffing	0	2	1	Other: Qualitative Evaluation			

Scoring for the Awareness-BGD instrument. The total weighted score represents each sub-scale equally:

*Total Weighted Score = (KnowledgeScore / 18 * 10) + (ActionScore / 8 * 10) + (EmpathyScore / 24 * 10)*

The hypothesis being tested is that participation in your intervention resulted in an increase, short-term or long-term, in awareness-BGD for all the participants on average. To show short-term effect compare the paired results between the pre-survey and the post-survey, based on the total score of survey items. To show long-term effects compare the pre-survey and follow-up survey.

To test for an effect, use a 2 sided, paired-t-test. The t-test allowed us to conclude if on average, a person's score at a later time differed from a person's score at an earlier time.

For other questions on scoring, please contact the primary correspondent for the paper, Vivian Meng at vivian.meng@mail.mcgill.ca.

RESULTS REPORTING

A boxplot is recommended for graphing your results. A box-and-whiskers plot provides a visual display of change:

- 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.

The scoring of "What benefits do increased gender diversity in the workforce offer technical industries?" is done qualitatively. This question includes detractors to see how well attendees understand the benefits of gender diversity.

Intervention:

Date:

Unique Identifier:

_____	_____	_____	_____	_____	_____
Birth month (numerical)	Middle initial(s)	Year of grad. from high-school	First 3 letters of father's first name	First 3 letters of mother's first name	Last 4 digits of primary phone number

Gender:
☐ Female ☐ Male ☐ Other ☐ Do not wish to disclose

Please rate your agreement with the following items:

	1 Strongly disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly agree
I am likely to attend gender diversity workshops in the future.	1	2	3	4	5
Companies should not actively promote gender diversity in the workplace.	1	2	3	4	5
Companies should spend more resources toward creating a gender diverse workplace.	1	2	3	4	5
Within my current knowledge, I know where to find information on how I can help advance gender diversity.	1	2	3	4	5

Gender diversity in the technical workplace benefits society on a:

	1 Strongly disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly agree
Personal level	1	2	3	4	5
Interpersonal level (e.g. when interacting with people around us)	1	2	3	4	5
Corporate level	1	2	3	4	5
National level	1	2	3	4	5

What benefits do increased gender diversity in the workforce offer technical industries?

AWARENESS OF THE BENEFITS OF GENDER DIVERSITY INSTRUMENT

	Yes	No	Don't know		Yes	No	Don't Know
Access to foreign markets				Solution to skill shortages			
Access to a broader talent base				Enhanced market development			
Increase in innovation potential				Stronger financial performance			
Increase in cash reserves				Greater return on human resource investment			
Decrease in cost of staffing				Other:			