

Does diversity influence group success?

January 31 2014, by Johanna Vandermaas

Support for gender diversity in organizations and institutions has risen steadily in recent years, with reports and pundits hailing the strengths and virtues of having a female voice involved in decision making processes. Yet little research exists on just why gender diversity works. A new study led by a Ryerson University researcher exploring gender diversity in science research sets out to examine if gender diversity leads to better results, be it in the lab or the boardroom.

Lesley Campbell is a professor in the Department of Chemistry and Biology at Ryerson University and an expert in evolution, ecology and botany. In conducting her research and publishing papers, she was intrigued by the issue of research team composition and whether diverse groups had more success than groups comprised of uniform membership such as individuals of the same gender.

Campbell, along with former researchers from Rice University, decided to ask a basic question: Does diversity have an influence on the success of groups?

Her recently published paper, "Gender-Heterogeneous Working Groups Produce Higher Quality Science," offers the first empirical evidence that heterogeneous teams produce results perceived to be of higher quality by peers than results produced by homogeneous teams.

"Gender diversity, at a minimum, improves the likelihood that you are going to be doing effective [science](#)," says Campbell. "Gender diverse groups and groups that are diverse in a variety of ways might actually be

more effective ways to do team science and team work. We now have scientific evidence to back that suggestion up."

Applied more broadly, the team's findings support the concept that diverse teams - be it cultural, ethnic or gender diversity- produces better results in teamwork settings in the lab, business world, social settings and beyond.

"These research findings demonstrate the tremendous value for organizations to encourage diversity in teams," said Julia Hanigsberg, Vice President Administration and Finance. "Research like Professor Campbell's provides an extremely valuable insight into the importance of diversity and how encouraging it can drive better results and positively influence the success of individuals, teams and managers."

Campbell's [research findings](#) were not all good news. She and her team discovered that over the past 10 years the number of women in leadership roles has increased; however, there has not been a similar increase in women working at the group level. This, says Campbell, is problematic as it suggests that female researchers and female graduate students are increasingly not participating in research projects, which is ultimately to the detriment of the science produced by those groups.

"The work of Dr. Campbell and her colleagues provides compelling data that show engaging more women in science will benefit both science and the broader community," says Imogen Coe, Dean of Ryerson's Faculty of Science. "Institutions, organizations, governments and the community as a whole must work harder to engage girls and women in science at all levels. Universities, specifically, play an important role in enhancing the recruitment and retention of female scientists and researchers and in creating a fully engaged and supportive climate for all under-represented groups."

The Research

To work with a consistent data sample, Campbell and her team focused on the research produced by 157 research working groups from the National Center for Ecological Analysis and Synthesis (NCEAS), a leading publishing ecological institution based in California, between the years of 1997 and 2006. The team evaluated the success of each paper based on the number of citations the work received from peers. They found that diverse authorship teams received 34% more citations than publications produced by uniform or homogeneous teams and that peers perceive the publications produced by gender-diverse groups to be of higher quality.

"We all come to the table with different ways of problem solving. It's a diverse way of finding a solution to the same problems," says Campbell. "It's not just about the facts that we know but the way that we do things really does differ between men and women, at least according to the evidence out there. There are very different ways that groups with gender diversity complete things."

More information: Campbell LG, Mehtani S, Dozier ME, Rinehart J (2013) "Gender-Heterogeneous Working Groups Produce Higher Quality Science." *PLoS ONE* 8(10): e79147. [DOI: 10.1371/journal.pone.0079147](https://doi.org/10.1371/journal.pone.0079147)

Provided by Ryerson University

Citation: Does diversity influence group success? (2014, January 31) retrieved 19 April 2024 from <https://phys.org/news/2014-01-diversity-group-success.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private

study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.