2019

Using an ALA Carnegie-Whitney Grant to Support Women in STEM: A Bibliography Project

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Abstract

In the last decade, the spotlight on science, technology, engineering, and mathematics (STEM) education has resulted in hundreds of studies on various themes. Categorizing the literature on the status of women in STEM is challenging: the word “STEM” can be ambiguous and the topic is intersectional. A comprehensive bibliography could guide users to the relevant research. By understanding the intersectionality of issues facing women in STEM in higher education, librarians can help their organizations engage in local, regional, and national recruitment and retention efforts. Additionally, libraries can develop collections to support students and faculty conducting research in this area.

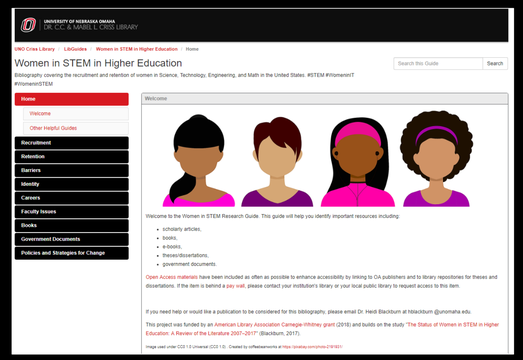
Method

1. Awarded a Carnegie-Whitney grant in March 2018.
2. Reviewed select databases for resources published between 2007-2018.
3. Compiled over 1,100 documents for storage and retrieval.
4. Built LibGuide and defined emerging themes found in the literature.
5. Loaded content into the LibGuide linking to Open Access materials (where possible).
6. Disseminated project to campus STEM departments and linked to other LibGuides.

Emerging Themes:

- **Recruitment**: Motivation, Pipeline, Pathways, Two-Year Programs, Calls for Action
- **Retention**: Learning Communities, Mentoring and Role Models, Persistence, Attrition
- **Barriers**: Stereotypes, Perceptions, Biases, Campus Culture, Lived Experiences
- **Identity**: Sense of Belonging, Success in STEM, Self-Concept and Self-Efficacy
- **Careers**: Entering the Industry
- **Faculty Issues**: Faculty Work-Life Balance, Campus Climate, and Leadership
- **Government Documents**: Reports and Government Documents
- **Policies and Strategies for Change**

Researching the intersectionality of women in science, technology, engineering, and math in higher education is challenging.



libguides.unomaha.edu/womeninSTEM

This Research Guide will help.

Recommendations for Librarians

- Purchase materials by and for women in STEM, including women authors, biographies/autobiographies, and feminist perspectives.
- Collaborate with education, gender studies, and psychology librarians to create an interdisciplinary collection.
- Encourage publishers to provide titles on topics regarding women in STEM, written by women authors.
- Display and promote collections within the library and across campus.
- Provide programming outreach to women in STEM for specific student clubs or faculty research groups.
- Attend campus events to understand the needs of the women in STEM in your organization and to look for co-sponsoring opportunities.

Conclusion

Women faculty and students in STEM programs face many challenges and barriers. Searching for research on women in STEM can be difficult and time consuming. Librarians can present this guide as a tool to help recruiters, administrators, public servants and educators recruit, retain, and support these students, faculty, and staff. Displays, programming, and events can encourage discovery and spark dialogue. Libraries should continuously strive to highlight their collections as a visible demonstration of their support for these patrons.

Impact:
Number of citations entered: ~1,100
Number of views: 1,218 over 12 months
Linking from: Google, LibGuides
Most popular pages: Home page, Recruitment

For more information, see my Open Access Article:
Blackburn, Heidi. (2017). The Status of Women in STEM in Higher Education: A Review of the Literature 2007–2017, *Science & Technology Libraries*, 36:3, 235-273. DOI: 10.1080/0194262X.2017.1371658

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