Plan Overview

A Data Management Plan created using DMPTool

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Title: Bolstering STEM with Scholarships and Mentoring Networks at an HSI

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Project abstract:

This S-STEM project, Bolstering the STEM Network with Mentoring (BS-NM), asks whether four approaches can improve the education and degree completion of low-income students at a public STEM-focused Hispanic Serving Institution. Approaches include scholarships; directed mentoring in professional discernment and skill-building; community-building; and evidence-based instruction in study habits. We test whether in-group authenticity affects students' abilities to improve their study strategies. Grade performance, persistence, and graduation rates will be compared across student participants and their non-participating peers.

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Copyright information:

Bolstering STEM with Scholarships and Mentoring Networks at an HSI

Roles for the directed mentoring dinner workshops Bolstering the STEM Network with Mentoring (BS-NM): Bruce J. Harrison (PI) will manage the project. Taffeta Elliott and Brian Borchers will design, collect, and analyze surveys of student satisfaction, cohesion, career plans, and measures of career knowledge. Peter Mozley will assess the involvement of the Office of Student Learning and other student support services.

Roles for the S-STEM scholarships: Bruce J. Harrison, Taffeta Elliott, and Brian Borchers will request deidentified student FAFSA information and grade performance from the Financial Aid Office and the Registrar's Office. Comparisons will be made between S-STEM scholarship recipients and other matched students.

Roles for the experiment on in-group authenticity in early intervention videos that give evidence-based instruction on college study strategies (Study Strategies for Efficient Learning, SSEL): Taffeta Elliott will design the video stimuli, oversee their presentation to randomly assigned first-year undergraduates, assess their participation, and analyze their de-identified coursework and grade performance as supplied by Institutional Research and/or instructors in courses. Peter Mozley will coordinate use of the LMS.

BS-NM: Surveys in this project will generate student responses about satisfaction, cohesion, career plans, and pre- and post-test measures of career knowledge. The data will be de-identified, unless participants choose to identify themselves.

S-STEM scholarships: Processed data summarizing student FAFSA information and grade performance for both S-STEM scholarship recipients and other matched students. The data will be de-identified, unless participants choose to identify themselves.

Experiment on Study Strategies for Efficient Learning, SSEL: Processed data assessing student participation, and analysis of their de-identified coursework and grade performance as supplied by Institutional Research and/or instructors in courses.

While the data are processed and managed, data files will be kept on a password-protected local network behind a firewall, accessible only by the study investigators from computers located in the locked offices of the PIs.

We will retain the de-identified datafiles with coded identifiers indefinitely. The encrypted drive containing data files is password-protected.

Two years after project completion, the processed, de-identified data will be made publicly available on the student success website of Academic Affairs at New Mexico Tech. After publication related to this project, we will deposit the scholarly journal articles in the NSF Public Access Repository.

Taffeta M. Elliott, J. Bruce Harrison, Brian Borchers, and Peter Mozley will own the copyright and IPR of new data we generated. The data will be licensed for reuse under Creative Commons (CC BY version 4.0).

Data formats will be open, document standard filetypes, including PDF and CSV format. Filename conventions will be used to keep track of version changes.

Data will be maintained at least 5 years, and possibly indefinitely, depending on interest expressed by others.

Question not answered.

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