WILL THIS IMPROVE MY TEACHING? ACADEMICS MENTORING FEMALE STUDENTS IN STEM

Jackie Reida, Erica Smitha, Nansiri lamsuka, Jennifer Millerb, Janelle Wilkesc, Therese McGurena

Presenting Authors: Jackie Reid (jreid3@une.edu.au) and Erica Smith (esmith32@une.edu.au) aSchool of Science and Technology, University of New England, Armidale, NSW, 2351, Australia

^bOffice for Advancement, University of New England, Armidale, NSW, 2351, Australia

KEYWORDS: STEM, mentoring, distance education, academic professional development

BACKGROUND

A mentoring program designed to assist female students to make appropriate choices in pursuing and achieving STEM-related career goals during and after university is being implemented at a regional Australian university in 2015. This project will benefit both mentorees (students) and mentors (academics and professionals). For mentorees, the program offers assistance in recognising and addressing potential roadblocks to a sustained and successful career, in building confidence to pursue career goals, and in developing sound decision making skills in career planning. For mentors, the program offers professional development opportunities related to STEM education and careers.

OBJECTIVES

This presentation will describe the mentoring program, with a particular focus on the professional development opportunities offered to academic mentors. These include professional training, online resources and webinars, and networking opportunities with STEM professionals (academic and industry based). The benefits to academics will be explored, along with how this type of professional development can have a flow on effect to foster and inspire change and innovation in teaching.

DATA COLLECTION

Academics interested in becoming mentors in the program completed an expression of interest (EOI) that included questions such as: 'What do you believe you will gain from being a Mentor?', and 'What do you believe are the issues facing female students interested in a career in STEM?' In an interview at the end of the program academic mentors were asked to reflect on these questions again. In addition, they were asked questions that relate to teaching such as: 'Has participation in the mentoring program had an effect on how you will approach your teaching in future?'

RESULTS

In the EOIs, academics identified a number of possible benefits from mentoring. They included personal growth, awareness of students' attitudes towards study and careers in STEM, flow-on effect back to the workplace and disciplinary teams, and, importantly, better-informed teaching and enhanced capability to make a difference as a teacher. Analysis of interviews held at the end of the program will determine if academics have realised the benefits they identified at the start, and will also probe further to uncover other benefits and evidence of impact. Of particular interest will be evidence of the impact of program participation on their teaching.

CONCLUSIONS

Through the establishment of a mentoring program, academics have been provided with professional development opportunities that will potentially enhance interactions with colleagues and students, have a positive impact on their teaching and result in positive outcomes for STEM education.

ACKNOWLEDGEMENTS

Funding for this project has been provided by the Australian Government Higher Education Participation Programme. The project reported has ethics approval (UNE HE15:111).

Proceedings of the Australian Conference on Science and Mathematics Education, Curtin University, Sept 30th to Oct 1st, 2015, page 60, ISBN Number 978-0-9871834-4-6

[°]School of Environmental and Rural Science, University of New England, Armidale, NSW, 2351, Australia