Engaging and Empowering Students as Change Agents in Science Education

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Abstract

Students engaged as partners in pedagogical research can be empowered to become change agents in higher education. Students often bring unique insight, perceptions and ideas that complement faculty expertise regarding teaching practices. In this session, we will explore a partnership model that we have used to engage a team of undergraduate Science students with Science faculty and staff to create novel cancer biology pedagogy. Specifically, the undergraduate student researchers will showcase their strategies in working collaboratively to develop 1) a cancer biology teaching lab that will be implemented into the first-year Biology courses, and 2) a cancer biology workshop for public education with our community partners, Let's Talk Science and the Windsor Cancer Research Group. In addition to promoting a deeper understanding of cancer biology and science education, we will also demonstrate how this model builds and strengthens student-faculty partnerships in Science and creates new pathways for engagement and networking of students within the community. Equipped with these transformative experiences, students are empowered to take on educational leadership roles and hence become positive change agents of higher education in Science. We will also consider mechanisms for adopting our model of student-faculty partnerships to other disciplines, thus enriching the overall teaching culture.

Elements of Engagement:

Our session will include participation from our research team of four undergraduate Science students, and Science faculty and staff, who will collaboratively demonstrate a partnership model to:

1. develop an interactive, cancer biology, first year teaching lab, and

2. create a cancer biology workshop for public education with community partners, Let's Talk Science and the Windsor Cancer Research Group.

Moreover, we will also discuss how the inclusion of students in curriculum development and public outreach transforms their perspectives on teaching and learning, develops their community leadership roles, and strengthens the overall culture of teaching and learning in higher education.

In this session, we will involve the participants by having them test some of the new cancer biology teaching activities that our student researchers have developed. These activities are interactive and will encourage participants to be engaged. Throughout the session, we will also pose questions for self-reflection and use them to foster discussion. This session relates to several conference threads (e.g. Teaching and Learning Science and Curriculum) and provides opportunities for our students to be educational leaders, thus empowering them to be positive agents of change that enriches the teaching culture in Science.

References

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