E115 Taking Science Behind the Walls: Side-by-Side Learning With Students and Incarcerated Individuals

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Learning Overview: After attending this presentation, attendees will have greater insight into the Inside-Out pedagogy and how it can be used to enhance learning and understanding within a science course taught in a correctional facility.

Impact on the Forensic Science Community: This presentation will impact the forensic science community by presenting a novel pedagogical approach that may be incorporated into an undergraduate or graduate forensic science curriculum and which juxtaposes the course content with a criminal justice context.

Inside-Out is a national program that brings together college students and incarcerated individuals to learn side-by-side through facilitated discussion. The first Inside-Out class started in 1997, Temple University in Philadelphia, PA, and as of 2019, more than 200 correctional facilities have hosted over 35,000 inside and outside students.[1]

Initially, the Inside-Out courses addressed topics surrounding criminal justice, but have expanded to cover many topics within the humanities and social sciences. In 2019, Drexel University taught the first science-based Inside-Out course, The Science of Science Fiction, bringing together 12 outside students from different majors (Biology, Biomedical Engineering, and Communications) with 14 inside students from Curran-Fromhold Correctional Facility. The course met for two hours weekly, during the ten-week quarter term. The topic of science fiction was specifically selected to ensure that it was accessible to students from different educational and scientific backgrounds. It also allowed discussions on many different aspects of science, including evolution, the physics of time travel, and editing of genomic DNA, while also allowing discussions on such themes as societal structure, prejudice, and justice.

The role of the instructor in the classroom setting is as a facilitator to the discussions and learning. Through group work and class discussions, the aim of the program is for the students to learn from each other entirely through discussion, without any traditional lecturing. This was adapted slightly to introduce some more complex scientific concepts, to introduce recent scientific advances. The course was designed around two novels, *The Time Machine* and *The Genius Plague*; one comic, *Astounding X-Men*; and one television show, an episode of *Doctor Who*. Students were given weekly reading and assignments to complete. In class, students would start by working together to outline the scientific concepts covered in the assigned reading from that week. From the concept, they would select two or three for further discussion. The instructor prepared "pop-up" lectures lasting three to five minutes on two or three of the main themes, providing more context for the science content and the current understanding. Group activities allowed students to work together to draw images of characters, design technology that may have been used in the reading, or to discuss specific quotes in more detail. Class discussion allowed students to share their views and their own understanding and insights of science with each other. Over the course of the ten weeks, it was evident that the Inside-Out model works well with a science-based curriculum. The students were fully engaged in the pre-class readings and very active within the classroom. The most successful part of the class was the class discussions, which were varied in their topics, but were always focused on science and the themes within the readings. This course helped to break down the barriers between inside and outside students, generating an active learning community over the course of just ten class meetings.

Reference(s):

1. Inside-Out Center. *The Inside-Out Prison Exchange Program: Changing the world from the inside-out, a global movement of transformative education*. https://www.insideoutcenter.org/PDFs_new/InfoGraphic_May2019.pdf. Accessed July 30th 2019.

Education, Facilitated Discussion, Incarceration