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A Novel Collaborative Interdisciplinary Teaching Model for Science Education: Engaging Non-STEM Students in Science Communication to Counteract Negative Stereotypes of Scientists

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Abstract

This teaching method aims to train communication students on portraying scientists as warm, competent, and trustworthy individuals who use their technical skills for the good of society, the public and scientific progress. Given the role of science education in counteracting the negative stereotypes of scientists as eccentric, cold, involved in dangerous scientific experiments, and isolated in ivory tower[1,2], our method is designed to teach communication (COMM) students how to write feature stories that portray the human and professional sides of scientists. Drawing on the Stereotype Content Model, students use the two dimensions of social perception, namely warmth and competence to write feature stories about computer science students as an example of scientists. Using storytelling techniques, students are required to write feature stories that emphasize the human side of scientists including personal characteristics (kindness, friendliness), ethical values, and prosocial intentions, in addition to the professional side of scientists including expertise and technical skills. The assignment is set up in a collaborative interdisciplinary teaching model through which faculty from COMM and Computer Science (CS) departments to connect students from both departments. Our teaching method aims to provide COMM students with an authentic activity that taps into science education by counteracting the negative stereotypes of scientists. Importantly, if the challenge of dismantling negative stereotypes of social and professional groups is to be met, communication students must be trained in real world writing and interviewing experiences that can familiarize them with the human and professional sides of negatively stereotyped groups.

Keywords: interviewing, portrayals, storytelling, warmth, writing