Using Student-Led Discussion and Reflection of a Public Health–Related Nonfiction Book as a Tool to Encourage Inclusive Pedagogy in an Undergraduate Classroom

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Educators realize the need to provide an inclusive, safe environment in a diverse classroom setting to encourage discussion of sensitive topics. However, descriptions of evidence-based approaches that may help us to meet inclusive pedagogy–related competencies are limited. Here, we describe a discussion format that followed chapter readings from a nonfiction biographical book called Mountains beyond Mountains: The Quest of Dr. Paul Farmer, a Man Who Would Cure the World (2003), by Tracy Kidder. This semester-long effort allowed sufficient time for students to develop an understanding of global public health affairs and to reflect on their own role in this world as responsible citizens. A discussion around several sensitive issues emerged, such as the extent of their belief in faith versus science, their opinion on providing financial aid to developing countries versus addressing public health issues in their home country, stereotypes and how that may spread panic during a public-health emergency. The student essays provided evidence that activities were successful in 1) drawing out students’ voices about world affairs, 2) teaching students to empathize with varied belief systems, 3) helping students develop a deeper appreciation of empirical and ethical factors that may affect such issues—all of which are key competencies for an inclusive classroom setting. We believe that the activities are flexible in structure and could be easily incorporated into a biology or liberal arts classroom setting to achieve inclusive pedagogy–related goals.

INTRODUCTION

The core principle of inclusive pedagogy is to ensure that every student, irrespective of social identity, feels welcomed in an academic setting and leaves the classroom having developed particular skills (1). An environment of social belonging is associated with increased intentions to persist towards graduation (2, 3). To create such an environment, inclusive pedagogical practices have garnered significant attention in educational scholarship (4). Such practices emphasize the importance of dialoguing with students and empathizing with the needs of students from diverse backgrounds (5).

Our classrooms have become increasingly diverse, with social identities cutting across several axes of race and ethnicities (6, 7), and discussion of sensitive and cross-cultural topics in a diverse classroom may pose a significant pedagogical challenge. While STEM educators believe in inclusive pedagogy, they often avoid discussing sociopolitical, culturally sensitive topics due to the enormity of course content, and/or an inherent discomfort in facilitating these discussions (8). As a result, instruction in a STEM classroom is typically objective, data-driven, and focused on scientific concepts (e.g., gene regulation) (9). Nonetheless, instructors who have successfully executed such discussions provide evidence that socio-scientific issues-based instruction fosters content learning, improves performance on high-stakes tests (10), and increases reflective judgment and epistemological growth (11, 12). Discussion of global socio-scientific issues is vital in creating informed citizens, inculcating values required for equality and social justice, and finding solutions to complex problems (13). However, for discussion of global socio-scientific issues, forming a worldview is important, for which merely teaching about world affairs is not enough (14). Forming a perceptive world view requires a platform that encourages dialogue around sensitive issues.

Here, we propose an activity, based on the Critical Inclusive Pedagogy framework, as outlined by Dr. Frank Tuitt (15) (Appendix 1) to design a classroom where all students can voice their diverse opinions about world affairs, comprehend the ethical and empirical factors underlying health disparities across the globe, and share their personal narratives with their instructor and peers for a meaningful connection.
The activity was implemented at Minnesota State University Moorhead (MSUM), into a course for nonmajors designed to meet the requirements of 1) introduction to Public Health emphasis and minor, and 2) Liberal Arts and Science Curriculum Goals towards a global perspective. It was conducted in accordance with MSUM’s IRB and informed consent protocols. The class was taught in spring 2019 during two weekly 75-minute periods, on Tuesdays and Thursdays.

Class period 1 (instructor-led)

One class period in a week was used to introduce students to concepts related to public health and to address any issues observed during class period 2 (Appendix 2).

Class period 2 (student-led)

The second class period in a week was designated for activities that followed chapter readings from a nonfiction biographical book, *Mountains Beyond Mountains: The Quest of Dr. Paul Farmer, a Man Who Would Cure the World* (2003), by Tracy Kidder. The book traces the journey of a Harvard-trained physician and anthropologist, Paul Farmer, who worked to cure multi drug–resistant tuberculosis in Haiti, Peru, and Russia, co-founded Partners in Health, and established himself as a renowned Public Health leader. For each chapter, a student was designated to serve as an Opener or a Facilitator, as per the guidelines detailed in Appendix 3. There were 26 students and 26 chapters, so each student served as a facilitator and an opener once during the semester. An opener’s role was to present a personal appreciation of public health—its endeavors and its relevance to their daily lives. An opening could include a short story, poem, or visualization relevant to the chapter discussion. A facilitator’s principal role was to stimulate and moderate the discussion by asking questions, identifying key points, keeping discussions focused, and drawing quiet participants. Participants were encouraged to focus on personal reactions to the readings, including values, opinions, feelings, and experiences. Students were asked to submit a reflective essay at the end, which provided evidence of their appreciation for world affairs.

Variation

A variation of this activity was implemented in a small-enrollment class (10 students), where each student served as a facilitator and an opener for several chapters covered in a single day.

Helpful tip

The instructor asked all student participants to write a short reflection paragraph on the class discussion at the end of each class period, which they submitted for attendance points. This gave every student an opportunity to reflect, participate, and raise their opinions, even if they hesitated to do so publicly during in-class discussions.

The efforts of the opener and the facilitator were graded as per the rubrics provided in Appendix 4.

Safety Issues

None

Conclusion

The Critical Inclusive Pedagogy framework, as outlined by Dr. Frank Tuitt (15), highlights several key competencies, including 1) activation of student voice, 2) sharing a personal narrative to build teacher–student and student–student rapport, 3) the instructor’s shared power with the students, and 4) positive feedback wherever needed. Our activity used several teaching strategies to attain these competencies, as highlighted in Appendix 1. Student reflections gathered at the end of this semester-long activity provided evidence that our semester-long integration of a liberal arts curriculum on global perspectives and discussion and reflection of the book helped us to achieve inclusive pedagogy—related competencies. Students confidently wrote about their opinions on world affairs and global health, and their reflections provided examples of 1) open-mindedness, 2) empathetic listening, 3) resistance to stereotyping, and 4) deeper appreciation of empirical and ethical factors that may affect such issues (16–18) (Appendix 5).

A student–teacher and student–student dialogue is critical for consciousness-raising and building relationships across differences and conflicts (19, 20). While the student–teacher dialogue is critical to creating an inclusive classroom, that dialogue is likely to be much more impactful if it is based on insights gathered from student-led activities. During the student-led discussions described here, the instructor remained a silent observer and listener to avoid being an overbearing influence or presenting a biased viewpoint. The teacher laid out clear expectations for this classroom environment with instructions and grading rubric (Appendices 4 and 5), and the key expectation was to mediate discussion in a comfortable, respectful environment. Moreover, facilitators were allowed to design their own questions for in-class discussion. This allowed student facilitators to raise topics that they were comfortable with (no less and no more!) (Appendix 5). The shared power and
clear expectations in the absence of a teacher’s overbearing presence allowed students to bring up sensitive issues, such as the extent of belief in their faith versus science (and why, for example, “Harvard admonished it, while in Haiti it was so prominent”), their opinion on providing financial aid to developing countries versus addressing public health issues in their home country, using guilt to motivate public health activism, conflict management in a linguistically different, politically unstable country, the importance of people’s trust in a Public Health leader, and much more.

Several conversations in the student-led environment required further instruction. The most commonly observed issue was lack of evidence-based decision making and stereotyping. To address such issues and to provide positive feedback to the students, the instructor used class period 1 to cover public health–related concepts and case studies to enhance quantitative literacy, such as Healthy-People 2020 and “Solve the outbreak” games (CDC). In our activity, students were directly observed by one instructor during class period 2, and this helped the instructor to identify teachable moments. For scaling it up to large-enrollment classes, students may be divided into smaller teams for the discussion. However, each team would require an observer/instructor so insights could be gathered and addressed during class-period 1. The activity may also be implemented in an online classroom, and discussion can be tailored to any kind of reading. For an online course, students may raise their opinions in writing or connect via online meeting platforms such as Zoom.

As we train students in STEM disciplines, their overall development as human beings and informed citizens cannot be ignored. These students will become voters on critical policies or scientists working with other interdisciplinary scientists from across the globe. They will be required to tread through multiple worldviews, values, and perspectives in an attempt to find solutions to complex problems (18, 21, 22). Adopting an inclusive pedagogy–related framework in a classroom can be instrumental in bringing diverse perspectives to the forefront, and it models the tools they would need to tread through diversity and discuss complex real-world problems. Overall, integration of a liberal arts curriculum on global perspectives and discussion of a public health–related book allowed students to discuss sensitive issues in a safe, non-threatening environment. The activity allowed them to develop an appreciation for the diversity of perspectives among their peers and to develop gratitude for the state of their current public health affairs. The activity was successful in helping students comprehend and form a worldview, which in the long run will be critical in finding innovative solutions to problems such as global warming and emerging infectious diseases—and in eliminating health disparities across the globe (23, 24).

SUPPLEMENTAL MATERIALS

Appendix 1: Critical Inclusive Pedagogy competencies and our proposed teaching strategies
Appendix 2: Supplemental instructor guide
Appendix 3: Guidelines for facilitator and session opener
Appendix 4: Grading rubrics
Appendix 5: Evidence gathered from student reflections for meeting Critical Inclusive Competencies

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