

Debating claims of fact in public health: A pedagogical activity

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ABSTRACT

This pedagogical activity asks instructors or workshop administrators to guide students through the process of evaluating evidence used to support health misinformation. In learning principles from argumentation and debate, students are asked to develop cases to refute or defend a factual claim about health, construct oral and written arguments for their cases, and share them with other students who will evaluate the strength and quality of evidence used by each side. Ultimately, students will learn how to: i) Understand how arguments are constructed that both support and refute a health claim; ii) evaluate evidence used for both sides of a claim of fact; and iii) identify health misinformation, particularly in an online context.

Introduction

In 2021, The US Surgeon General, Vivek Murthy, issued a report on the effects of misinformation on public health, particularly in light of the COVID-19 pandemic. In his opening statement, he pleads with the American public:

I am urging all Americans to help slow the spread of health misinformation during the COVID-19 pandemic and beyond. Health misinformation is a serious threat to public health. It can cause confusion, sow mistrust, harm people's health, and undermine public health efforts. Limiting the spread of health misinformation is a moral and civic imperative that will require a whole-of-society effort. (Murthy, 2021, p. 2)

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While misinformation about public health issues is not a new phenomenon, the COVID-19 pandemic existed within a particularly fraught intersection of challenges present in varying degrees among different sectors of the public: i) declining media literacy, ii) high social media use, iii) distrust of the media and government, and iv) low health literacy. In light of these recent challenges and with regard to future health crises, it is increasingly important for academics and practitioners to guide students in their evaluation of misinformation. The purpose of this essay is to offer a debate-style activity that enables students to research and evaluate claims of fact in health discourse.

Perceptions of misinformation contribute to a complicated landscape of trust in claims of fact. Notably, while 71% of US journalists say that misinformation is a significant problem, only 50% of US adults do (Gottfried et al., 2022), indicating a broader apathy among much of the general public. Combined with that apathy, however, is a negative view of social media for spreading misinformation and hate speech, with 64% of the US adult population believing that social media is detrimental to the nation (Auxier, 2020). According to one Gallup poll, 38% of adults in the US have no trust in the media, while 28% have little confidence (Brenan, 2022). To complicate matters, many people in the US demonstrate overconfidence in their ability to identify fake news (Lyons, Montgomery, Guess, & Reifler, 2021), while 64% of US adults "say fabricated news stories cause a great deal of confusion about the basic facts of current issues and events" (Barthell, Mitchell & Holcomb, 2016).

Given these conditions, questions over what counts as *fact* in public discourse reveal urgency in improving both media and health literacy. As scholars in education and science and technology studies have argued, the "deficit model" – where audiences are seen as "deficient in knowledge" that can simply be fixed through corrective information (Sismondo, 2010, p. 174)

– is a largely ineffective method that ignores preexisting beliefs and contexts of the audience. Additionally, journalistic reporting on health issues is sometimes seen as “inadequate or distorted” (Dentzer, 2009, p. 1), which is complicated further by both the political leanings of news outlets and algorithmic methods for pushing particular stories on social media. Further, questions about claims over “right” knowledge are compounded by epistemological concerns regarding how society privileges certain ways of knowing, often with a reliance on Western-centric Enlightenment ideals of scientific reasoning and objectivity. Scholars such as Donna Haraway (1989) push against claims that knowledge can only be produced under such conditions; rather, Haraway argues for “...politics and epistemologies of location, positioning, and situating, where partiality and not universality is the condition of being heard to make rational knowledge claims” (p. 589). Questions about epistemology, reality and truth, therefore, are complex and nuanced, and for students to critically engage with claims of fact, instructors should guide them through consideration of philosophical perspectives on knowledge production.

Borrowing from approaches to teaching argumentation and debate, instructors using this exercise will facilitate students in applying criteria to dissect and evaluate the complexity and validity of arguments about health. This activity is fitting for a variety of courses or workshops, including courses in health communication, argumentation, public health, and media literacy and could be adapted to other courses that explore misinformation as well. For argumentation courses, this assignment could be extended to discussions of types of reasoning or other dimensions of argumentation studies; but for many courses, the focus in this assignment specifically calls for students to improve their abilities in identifying and evaluating evidence used within arguments of facts specifically.

Learning objectives

For this activity, students will engage in a research-based analysis and debate of a claim of fact related to public health. After completing the activity, students will: i) understand how factual arguments about health are constructed; ii) develop strategies to evaluate evidence used for both sides of a claim of fact; and iii) know how to identify health misinformation, particularly in an online context.

The activity

To allow students the opportunity to evaluate whether or not a claim is misinformation, this assignment asks students to participate in a debate over a claim of fact about public health. Argumentation scholar Stephen Toulmin (1958) identified “claims” as specific positions that a rhetor wants accepted. While we typically think of contentious claims as those that argue for a course of action (policy claims) or what is right or wrong (value claims), claims of fact can likewise stir controversy. As Jasinski (2001) notes, “factual claims often go unnoticed because we overlook the ‘fact’ that a claim was made” (p. 25), often because of their assumed irrefutability. At their core, claims of fact are assertions about the realities of something in the present or past. Whenever factual claims encounter doubt, they become controversial, which is what we see happen when misinformation circulates. Controversies over claims of fact increased during the 2016 election and

through the COVID-19 pandemic as claims about “alternative facts” and allegations of “fake news” dominated political discourse. Through such framing, claims of facts were used to socially reconstruct what was both real and true about almost anything, including Donald Trump’s connections with Russia, school shootings, and the existence of the SARS-COV-2 virus. Given this growing issue, Bonnet and Rosebaum (2020) illustrate one way to help students learn how to identify misinformation by improving news literacy skills through a workshop on fake news and trust in the media, pointing to growing pedagogical interest in addressing misinformation. While news literacy is an equally important skill for the public, my proposed assignment takes an approach grounded in argument analysis and theory aimed to help students evaluate evidence specifically.

For the proposed assignment, students are put into small teams and assigned a side of factual health claim to defend. Claims may be true or false, and one team will be required to defend the claim while the other refutes it. To prepare, teams engage in a research project to see what kinds of evidence support the claim and then present their case to the opposing team and class orally and in written briefs. The assignment is based on a 25-student Health Communication course taught in a ten-week quarter, but could be scaled for larger classes with sections as well. The assignment typically takes place halfway through the quarter prior to students’ development of public health campaign and is graded as one of three major assignments in the course. In total, the activity could take anywhere from one class session to two weeks to complete the work, depending on the level of research the instructor requires of students.

To make the activity most effective, I recommend identifying potential claims together as a class and setting a fair and respectful tone for research and discussion. The goal is not to simply diminish claims that seem likely to be unsupported at the start of the exercise. Doing so may alienate students in the class who sympathize with such claims. Nor is it to debate claims that would be harmful to individuals in the classroom (e.g., racist conspiracy theories). Rather, it is to develop criteria and strategies for evaluating the quality and strength of evidence. Proceeding this way also helps students practice engaging in more civil and invitational discussion about topics that are potentially divisive.

Materials and Methods

To complete the assignment, students will need to do background reading on evaluating evidence. (I use chapter four of Zarefsky’s *The Practice of Argumentation* [2019], but many other argumentation textbooks suffice.) Students will also need to have access to a computer during and outside of class to complete their research. Finally, the instructor should set up an online shared drive for all teams to submit digital briefs of their case for the class to access.

Implementation

Brainstorming discussion

The activity begins with a brainstorming discussion about common factual claims regarding public health that are or have been contentious regardless of their factual status. These claims will be saved as options for the debate assignment (e.g., vaccines

cause autism, AIDs is caused by the HIV virus, and COVID is a hoax.). This discussion should allow for and encourage students to see that claims of fact can be argued and that claims that seem to them as either right or intuitive may not be accepted by everyone. The instructor and/or the class may decide to eliminate claims that students may find uncomfortable or offensive to defend or argue against.

Reading discussion

Next, the class moves into a discussion of the assigned Zarefsky reading on evidence (or other readings on evidence the instructor determines are useful). Students are asked to reflect on what makes them suspect something is misinformation online and how they engage with and evaluate evidence in such encounters.

Team assignments

Using a random team generator (or picking names of out a hat), the class will be divided into approximately five affirmative (or “pro”) teams of two or three students each that will argue in favor of the health claim and five negative (or “con”) teams of two or three students each that will argue against it. As teams are generated, the instructor should attribute corresponding numbers to each team so that teams are named AFF1, AFF2, AFF3, etc. and NEG1, NEG2, NEG3, etc. AFF1 and NEG1 will be paired together and given the same claim to debate, as will AFF2 and NEG2, and so on with the remaining teams. Instructors may generate teams in other ways as well, but using this method will allow for some randomization where students will be asked to potentially argue for a side they don’t agree with or may not have to expose their own views in volunteering for a particular side.

Topic assignments

Using the list generated at the beginning of class, each pair of teams (e.g., AFF1 and NEG1) is assigned a claim about health that they are asked to investigate and evaluate. If needed, the instructor might leave more time for students to devise other potential topics to be added to the list. Ideally, each pair debates a different claim than other pairs so that the class can be exposed to multiple claims and arguments during presentations.

Research

Once topics and teams are established, students work with their teammates to identify the strongest arguments and evidence

in favor of their assigned position in preparation for a debate-style presentation for the class on the claim. As students finalize their research, they are asked to develop PowerPoint slides that include clear and concise content that directly maps onto the briefs they submit on the day of their presentation. For shorter versions of the assignment, students might use the remaining class period and homework time to prepare for the debate in the next class meeting. For longer versions, students may be given up to two weeks to continue developing their briefs and presentations.

Briefs and presentations

On the day of the debates, each team is given five to 10 minutes to discuss why the claim is or is not supported based on their research, using their slides that demonstrate evidence they use to support each of their points. (Depending on class period length, the instructor may decide to use multiple class periods for presentations and discussions.) Additionally, each team will provide the audience with a digital brief of their case that will be saved to a class shared drive for easy in-class access. The brief should include a summary of the team’s position, entries for each point of support for their position, relevant descriptions or quotations from sources for each point, and direct links and citation information to the original source.

Audience discussion

Rather than engaging in rebuttal and cross-examination as some debate assignments might, the arguments will then get turned over to the audience to interrogate, evaluate, and discuss. As audience members, the non-presenting students will 1) identify the types of evidence used to support each sub-claim using Zarefsky’s classification (p. 85-92) and 2) evaluate the evidence used by applying Zarefsky’s criteria (2019, p. 94-100) from which I have borrowed and condensed to create a checklist for evaluating potential misinformation (Table 1).

Debriefing

After each debate, the class engages in discussion about the topic with some or all of the following questions: i) How have your personal views of this topic changed throughout the assignment? ii) Do you have any beliefs that are contrary to the stronger case? If so, why? iii) What makes people accept a claim that has weaker evidence than its counterclaim? iv) What will you do differently when you encounter information shared online? v) Do

Table 1. Evidence evaluation checklist for students.

Evaluation criteria	Notes
What type of data is it?
Is the evidence consistent with other well-established evidence?
How recent is the evidence?
Does the evidence actually support the claim?
Is the evidence adequate or substantial enough to support the claim or is more needed?
Is the evidence represented fairly, accurately and in context?
Is the source of the evidence credible? What are the outlets/authors’ credentials?
What is the purpose of the source in sharing this evidence?
Does the evidence cite scholarship or research that can be located by the reader?

we need more policies and regulations to minimize the spread of misinformation? vi) Should it be the responsibility of the user to identify what is and isn't misinformation?

Instructors using this activity should be aware of potential political or ideological reactions to some claims and topics. In my experience, less politically-charged claims (e.g., health impacts of fluoridated water) can sometimes be more generative for discussion and likewise help students better understand how to evaluate evidence, while in other cases, more politically-contested health claims (e.g., health impacts of vaccinations) generate both more engagement and understanding. The instructor might decide to curate claims based on their own experiences so that the assignment can lead to the most productive and generative learning possible. In some cases, this might mean steering students toward more controversial claims, and in other cases, it might mean having students debate less politically-charged topics. Students should complete this assignment with improved skills in identifying health misinformation by evaluating evidence and be able to clearly verbalize potential solutions to minimizing the spread of health misinformation.

References

- Auxier, B. (2020, October 15). 64% of Americans say social media have a mostly negative effect on the way things are going in the U.S. today. Pew Research Center. Available from: <https://www.pewresearch.org/short-reads/2020/10/15/64-of-americans-say-social-media-have-a-mostly-negative-effect-on-the-way-things-are-going-in-the-u-s-today/>
- Barthell, M., Mitchell, A., & Holcomb, J. (2016, December 15). Many Americans believe fake news is sowing confusion. Pew Research Center. Available from: <https://www.pewresearch.org/journalism/2016/12/15/many-americans-believe-fake-news-is-sowing-confusion/>
- Bonnet, J.L., & Rosenbaum, J.E. (2020). Fake news, misinformation, and political bias: Teaching news literacy in the 21st century. *Communication Teacher*, 34(2), 103-108.
- Brenan, M. (2022, October 18). Americans' trust in media remains near record low. *Gallup*. Available from: <https://news.gallup.com/poll/403166/americans-trust-media-remains-near-record-low.aspx>
- Dentzer, S. (2009). Communicating medical news: Pitfalls of health care journalism. *New England Journal of Medicine*, 360, 1-3.
- Gottfried, J., Mitchell, A., Jurkowitz, M., & Liedke, J. (2022, June 14). Journalists sense turmoil in their industry amid continued passion for their work: Journalists highly concerned about misinformation, future of press freedoms. Pew Research Center. Available from: <https://www.pewresearch.org/journalism/2022/06/14/journalists-highly-concerned-about-misinformation-future-of-press-freedoms/>
- Haraway, D. (1998). Situated knowledges: The science question in feminism and the privilege of partial perspective. *Feminist Studies*, 14(3), 575-599.
- Jasinski, J. (2001). Argument. In *Sourcebook on Rhetoric*. Sage.
- Lyons, B. A., Montgomery, J. M., Guess, A. M., Nyhan, B., & Reifler, J. (2021). Overconfidence in news judgments is associated with false news susceptibility. *Proceedings of the National Academy of Sciences*, 118(3).
- Murthy, V. (2021). Confronting health misinformation: The U.S. Surgeon General's advisory on building a healthy information environment. U.S. Public Health Service. <https://www.hhs.gov/sites/default/files/surgeon-general-misinformation-advisory.pdf>
- Sismondo, S. (2010). *Introduction to science and technology studies*. (2nd ed.). Wiley-Blackwell.
- Toulmin, S. (1958). *The use of argument*. Cambridge University Press.
- Zarefsky, D. (2019). *The practice of argumentation*. Harvard University Press.