Teaching Students How to Engage with Evidence through Writing and Group Discussions

How do writing exercises and group discussions affect students’ critical understanding of evidence?

The Objectives:
- In the social sciences, students struggle to understand and make connections between the main arguments, evidence, and empirical findings of academic journal articles.
- The goal of the project is to identify activities that improve students’ comprehension of and confidence in working with scientific sources.

Criteria for Evaluation:
- Can students identify the main argument, evidence, and findings of academic articles?
- Can students integrate these three components when writing an article summary?

Survey Instrument Excerpts

1. Which of the following describes the data that Heaney and Rojas use to support their claims? Circle all that apply. (Results reported in Figure 1.)
   a) Surveys of movement participants
   b) Interviews with party leaders
   c) Interviews with movement leaders
   d) Ethnographic observations of the protests

2. How does the following figure contribute to Heaney and Rojas’ main argument? Explain your answer in a few sentences below. (Results reported in Figures 3 and 4.)

Experimental Design

Sample: 28 students in two First-Year Writing Seminars (FWS).

Preparation:
- Students read Heaney and Rojas’ (2011) “The Partisan Dynamics of Contention.”
- The article incorporates the substantive focuses of the two FWS.
- Article structure is representative of mainstream social science journal articles and material students will encounter throughout their college careers.

Implementation:
- Students were randomly assigned to control or treatment groups.
- Control Group: Participated in classroom discussion
- Treatment Group: Completed structured writing assignment

Evaluation:
- Survey that evaluates students’ ability to identify the article’s main argument and evidence. Administered immediately following the treatment/control exercise.
- Following a unified classroom activity, students’ discussion of and critical engagement with the evidence in:
  1) Written summaries of the main argument.
  2) Analysis of the article’s strengths and weaknesses.

Questions for Discussion/Writing:
For class this week, we read the article “The Partisan Dynamics of Contention” by Heaney and Rojas. What kind of evidence do the authors use to support their claims?

Do you find Heaney and Rojas’ evidence compelling? Why or why not?

Results

Examples of Student Analysis

Treatment Exercise:
- “In their analysis, they polled members of the Democratic Party, and other third party movements to reveal how partisanship and the antwwar culture are related. They compared their findings under the Obama administration to the political antwwar tendencies under the Bush administration. I found this evidence compelling, but not conclusive. I don’t believe that the statistical analysis accounted for other factors which may have led to a decline in antwwar sentiment.”

Post-Test Evaluation:
- “It was fairly strong. Of course, when using statistical analysis to make an argument, there will always be gaps. Correlation does not always prove causation, and I would have liked the authors to address other possible reasons why anti-war sentiment declined, possibly because of economic recession.”

Discussion/Conclusions

- Students engaged with the evidence through both writing and discussion. The results reveal no significant differences between the treatment (writing) and the control (discussion) groups with respect to identifying and understanding the evidence presented in Heaney and Rojas’s article (see Figures 1-3).
- Overall, students in both groups demonstrated general competence in working with the source’s evidence.
- Closely reading an article before class played a minor role in students’ understanding of evidence. Whether or not students had closely read the article before coming to class did not affect their overall ability to identify and work with the evidence. Being able to explain how a figure contributed to the article’s argument (see Survey Instrument Excerpts and Figure 4) was an exception to this pattern.
- In sum, both classroom discussion and writing exercises seem to facilitate students’ understanding of the basic evidence in academic articles and how it supports the authors’ conclusions. However, understanding the more fine-grained details of the argument required engaging with the article before class.

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