

Strategies for Teaching Students How to Engage with Evidence: The Effectiveness of Structured Writing vs. Classroom Discussion

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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?

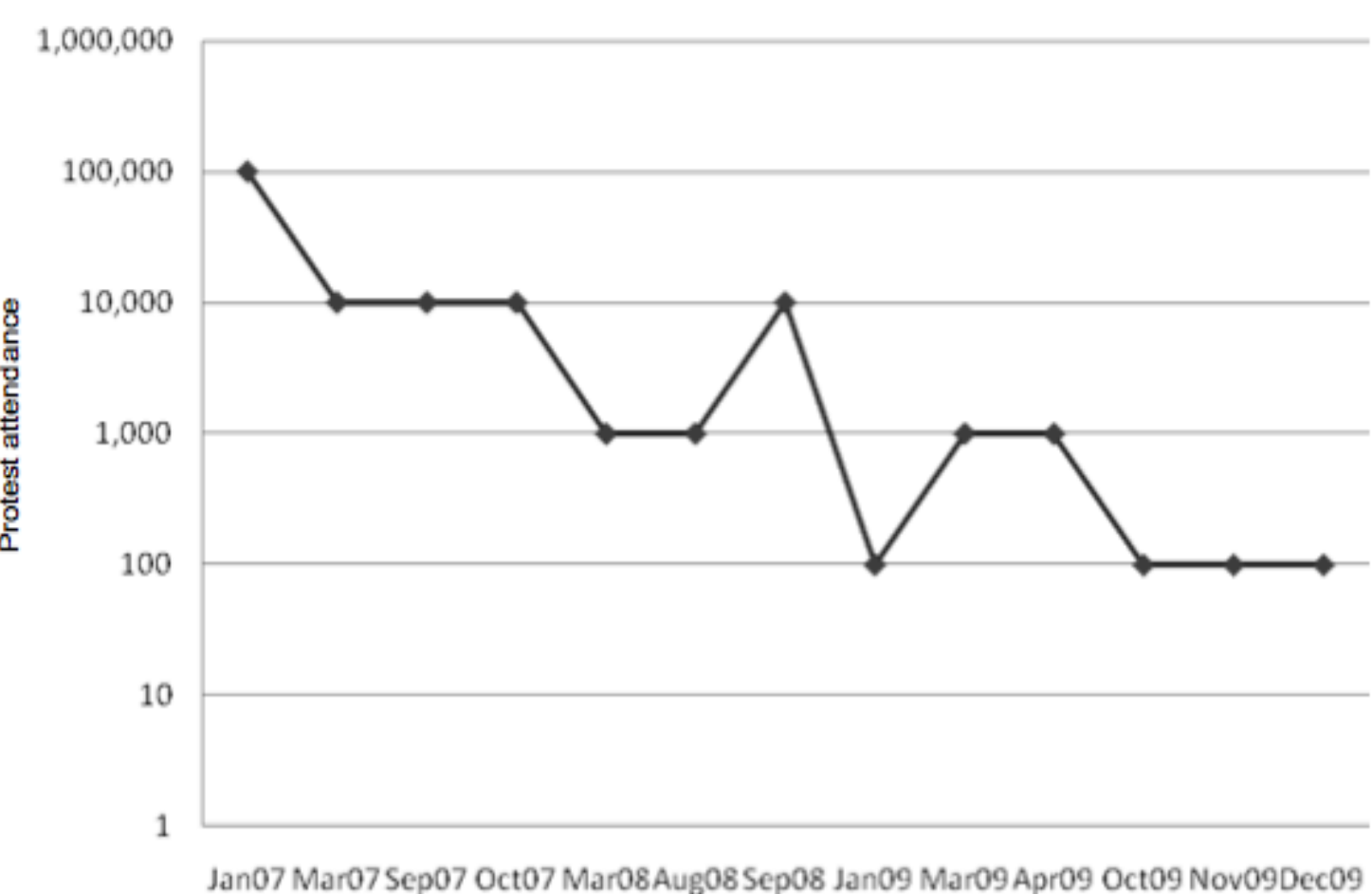
Survey Instrument Excerpts

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.)

Figure 1. Order of Magnitude of National/Nationally Coordinated Antiwar Protests, 2007-2009



Note: Because of the difficulty of judging crowd size surveyors at each event judged the size as falling roughly in the 1s, the 10s, the 100s, the 1,000s, the 10,000s, the 100,000s, or the 1,000,000s.

Heaney, Michael and Fabio Rojas. 2011. “The Partisan Dynamics of Contention: Demobilization of the Antiwar Movement in the United States, 2007-2009.” Mobilization. 16(1). p. 52.

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 journals 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?

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 antiwar culture are related. They compared their findings under the Obama administration to the political antiwar 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 antiwar 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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Results

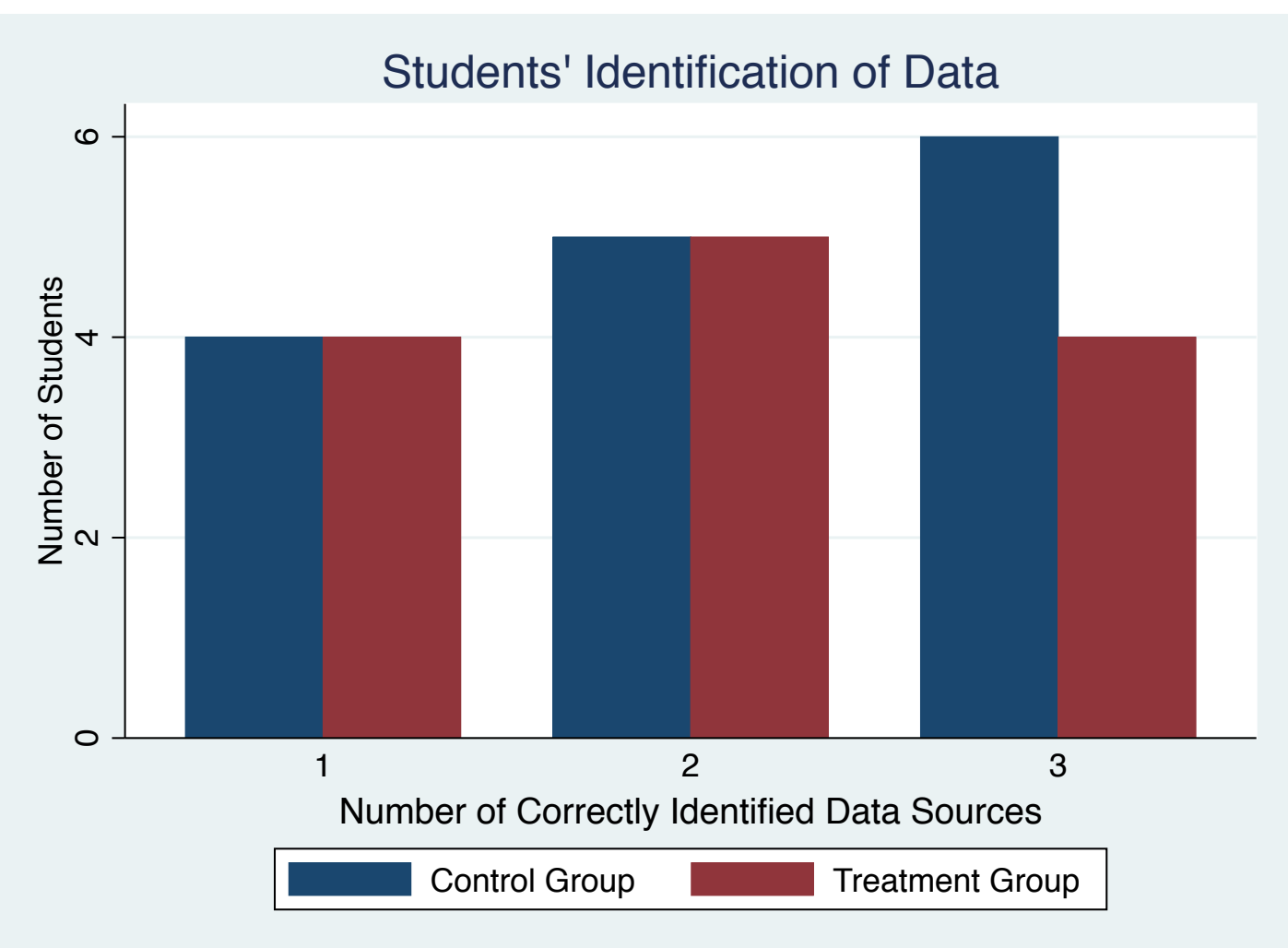


Figure 1. Reports the number of correct data sources, minus the number incorrect data sources, that students identify on the survey.

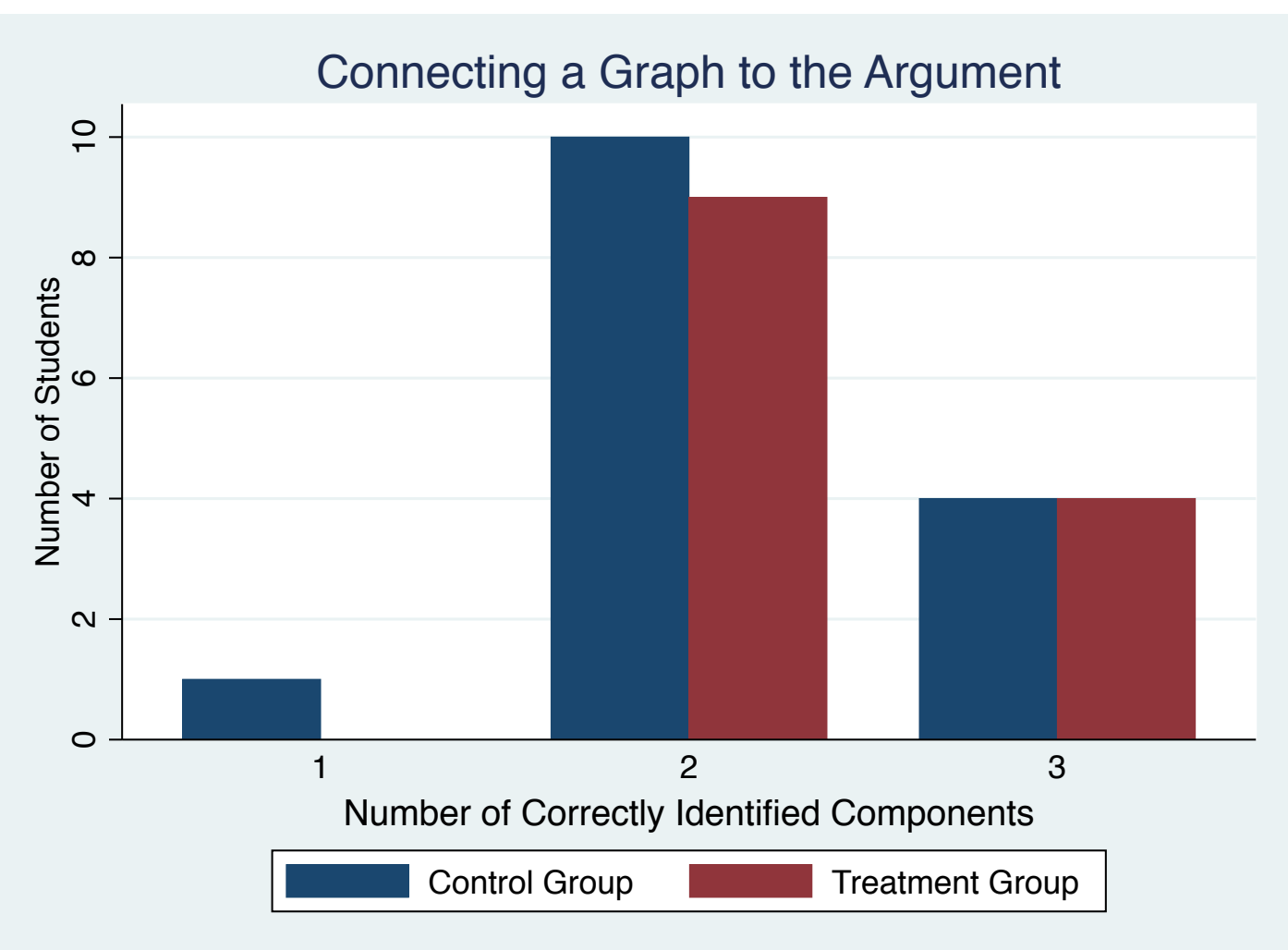


Figure 3. Reports the number of correct components of the authors’ argument that are supported by the given figure.

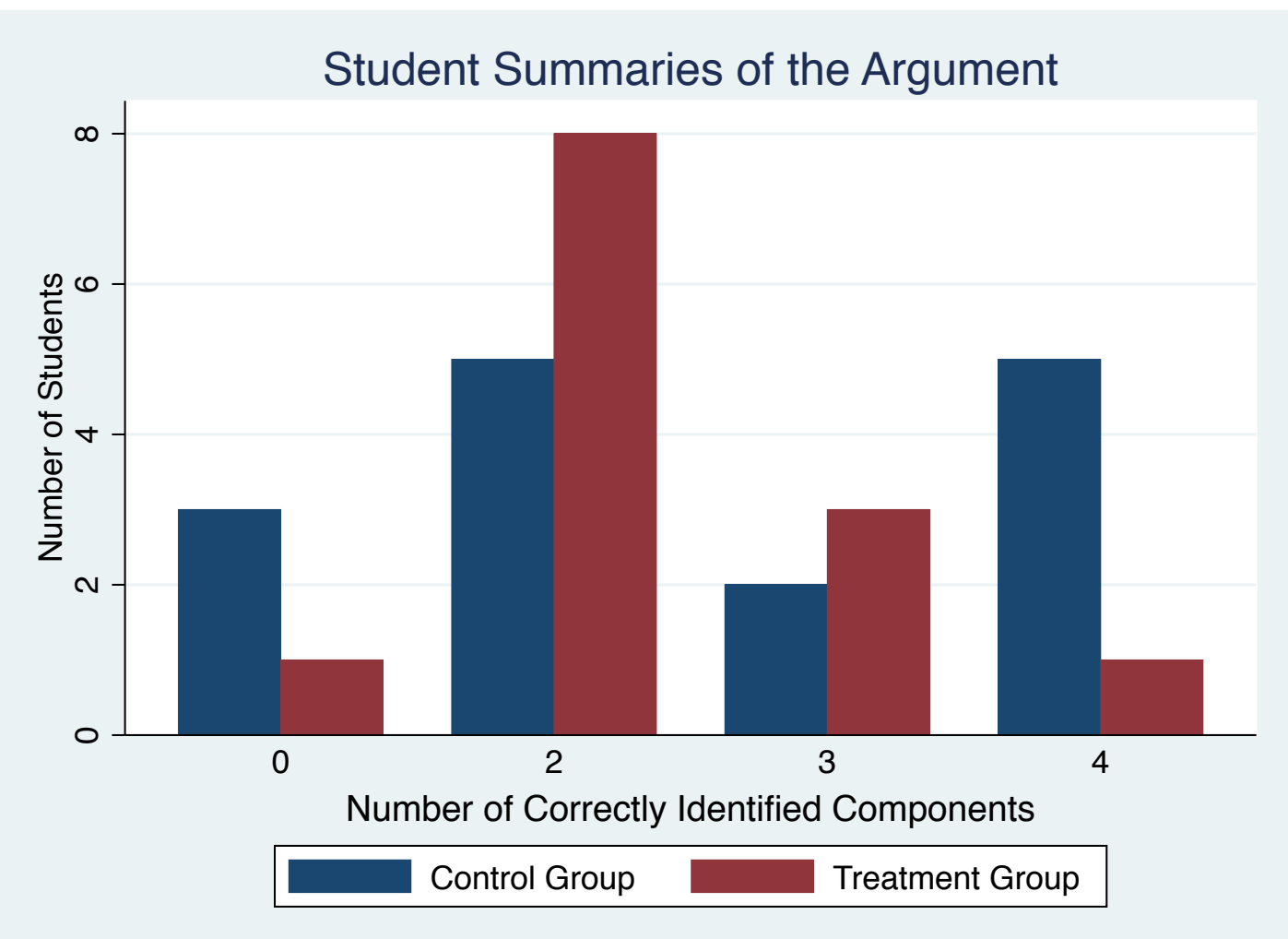


Figure 2. Reports the number of correct components of the authors’ argument that students identified in their open-ended summaries of the article.

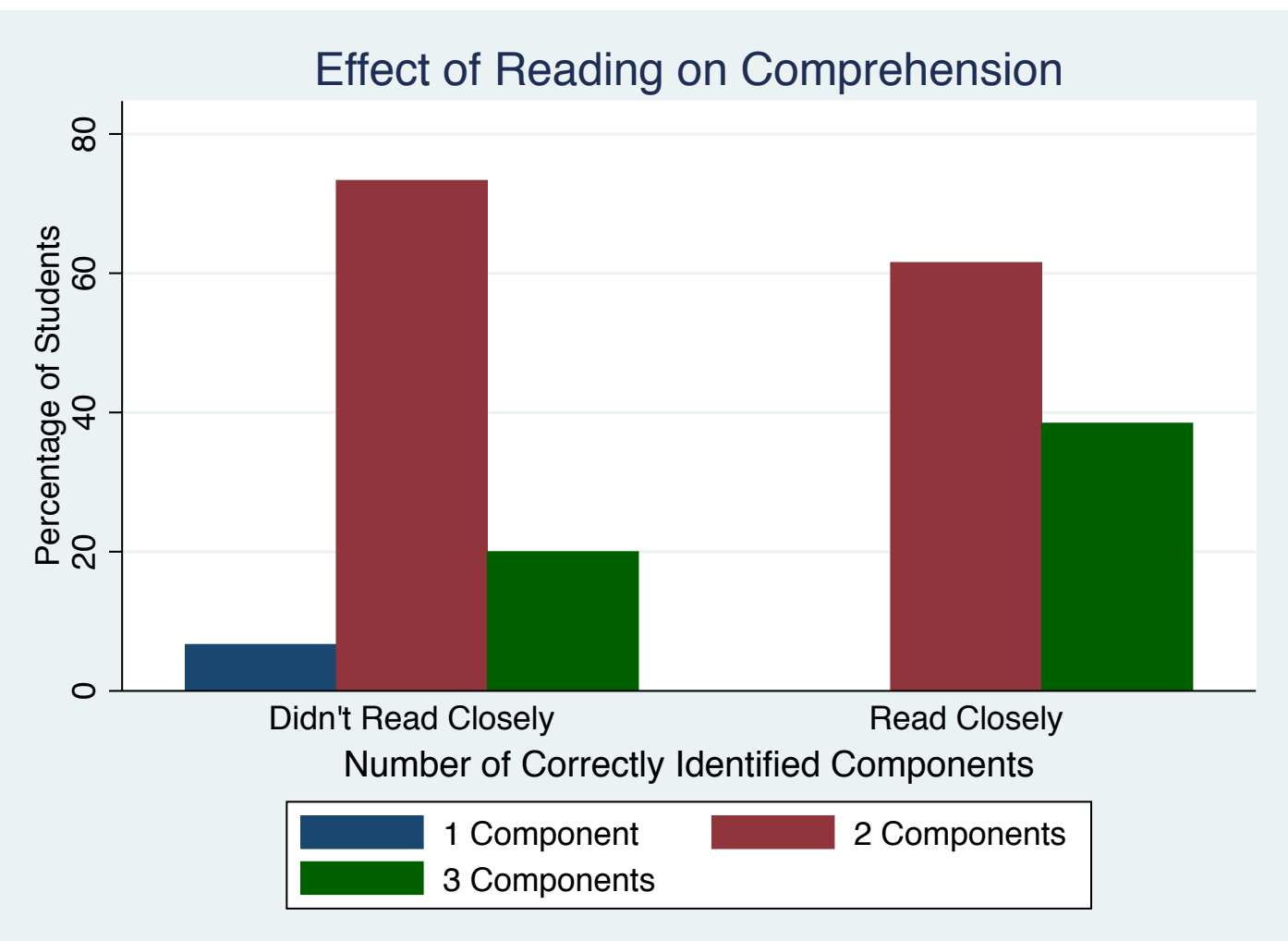


Figure 4. Reports the number of correct components of the authors’ argument that are supported by the given figure, conditional on whether students agreed or disagreed with the statement “I read the Heaney and Rojas article very closely.”