

What Does This Meme To You?: A Test of a Critical Thinking Exercise for the American Government Classroom

Dominic D. Wells¹, Joshua R. Meddaugh², and David Peña³

¹Assistant Professor of Political Science, Bowling Green State University

²Associate Professor of Political Science, Clayton State University

³Lecturer of Political Science, Clayton State University

ABSTRACT

Previous research establishes that active learning and writing assignments help students develop critical thinking skills. This paper presents an activity where students generated political memes and then wrote short essays explaining and defending the position they had taken in the meme. Students were assigned either the political meme activity or a traditional argumentative essay. Following the completion of the assignment, students participated in a classroom activity where the memes were interpreted and discussed. To encourage students to consider all sides of an argument, students were then asked to argue how someone from the opposite side of the political spectrum would interpret the same meme. Lastly, the students were given a survey designed to measure their perceptions of the assignments and their critical thinking skills. The results show that students generating the political meme performed similarly on the critical thinking survey to those writing the traditional argumentative essay and that the open forum made them consider the many opinions besides their own. This paper concludes with a discussion of the implications of these findings and suggestions for future implementation of the political meme activity.

Introduction

Richard Dawkins first coined the term “meme” in his book *The Selfish Gene* (1976) as a term that refers to something that spreads throughout a culture. In the age of the internet, information can be shared very quickly, creating an environment that allows for the creation of internet memes. Internet memes can take the form of video or images. Websites allow individuals to generate memes on their own and share them (Borzsei 2013). As a formal definition, the internet meme is, “a piece of culture, typically a joke, which gains influence through online transmission” (Davison 2012, p.122).

Internet memes often provide information and commentary related to current affairs. They are particularly significant today because many Americans receive their news through the internet, especially on social media websites. An estimated 62% of Americans receive their news from social media (Gottfried and Shearer 2016), making it increasingly important that people think critically about the information that is shared with them. Internet memes are usually generated by individuals and can easily contain false information. There is strong evidence that millions of Americans were exposed to false information about the presidential candidates in the 2016 election (Allcott and Gentzkow 2017). The amount of “fake news” on the internet is increasing and it can influence the agendas of partisan news media (Vargo, Guo, and Amazeen 2018). The power of the information shared on the internet, often through memes, is growing and it is becoming increasingly important for educators to integrate cultural internet phenomena into their classrooms.

The purpose of the political meme activity is to help students build critical thinking skills. By improving their critical thinking skills, students will be able to recognize faulty arguments that are shared through internet memes. Additionally, by having students take a political stance in a meme and provide evidence for the stance they have taken, students can create and share factually accurate information. If students can recognize faulty arguments and build arguments supported by evidence, they will be less likely to share misinformation on the internet and more likely to generate and share accurate political information.

This research tests the effectiveness of a political meme activity in developing critical thinking skills in students. Building upon previous scholarship suggesting political memes could be useful in the classroom (Wells 2018), this research measures the perceptions and critical thinking skills of students developing political memes and compares the performance of those students with students writing a traditional argumentative essay. First, this paper discusses critical thinking skills and the use of writing assignments in developing critical thinking skills. Second, this paper explains the research design and critical thinking survey used to test the effectiveness of political memes versus a traditional argumentative essay. Third, this paper presents the results of the analysis, which show that students completing the political meme activity perceived the activity to be just as helpful in

developing critical thinking skills as those students who completed the argumentative essay. Further, students completing the political meme activity performed similarly on critical thinking questions as those completing the argumentative essay. Finally, this paper concludes with a discussion of how instructors can implement political memes into their course instruction.

Critical Thinking and Writing Assignments

Critical thinking involves the recognition of faulty arguments, reckless generalizations, claims that are based on unreliable authority, and claims that are made without evidence (Burbles and Berk 1999; Fitzgerald and Baird 2011). Understanding complex ideas and using evidence to make reasoned arguments is also a key component of critical thinking (Moon 2008). Although evaluating evidence of critical thinking is a challenge for educators, Fitzgerald and Baird (2011, p.620) ascertain four types of informational statements that require critical thinking skills to accurately identify. These statements include factual statements, normative statements, interpretive statements, and causal statements. Factual statements are verifiably true or false. Normative statements express values of good or bad. Interpretive statements are derived from textual materials and determine an intended meaning. Finally, causal statements observe a cause and effect relationship between two things (Fitzgerald and Baird 2011).

There are several tests used by educators to measure critical thinking. This evaluation of critical thinking skills uses an abbreviated version of the Watson-Glaser Critical Thinking Appraisal. Watson and Glaser (1952) identify five levels of intellectual activity including, inference, recognition of assumptions, deductions, interpretation, and evaluation of arguments. Questions on the Watson-Glaser Critical Thinking Appraisal are constructed to test these levels of thinking. Previous research has confirmed the reliability of the Watson-Glaser Critical Thinking Appraisal (Hassan and Madhum 2007). The appraisal is used by scholars exploring a number of different topics such as priming (Howard, Tang, and Austin 2015), the flipped classroom (Wei and Sukavatee 2019), and the class performance of nursing students (Pitt et al. 2015). In short, the Watson-Glaser Critical Thinking Appraisal is an appropriate tool for assessing the critical thinking skills of students.

Active learning techniques help students learn (Frederking 2005; Shellman and Turan 2006) and help develop critical thinking skills (Damron and Mott 2005; Pleschova 2007; Oros 2007). Further, writing assignments can aid critical thinking when done right. Condon and Kelly-Riley (2004) conclude that “critical thinking is a value that all disciplines want to promote, and it can be promoted through writing, but such promotion needs to be done overtly” (p.69). Other scholarship suggests that writing may be the best way to develop and practice critical thinking skills (Brent and Felder 1992).

Political Meme Activity and Traditional Argumentative Essay

This research builds off of previous scholarship that presents political memes as a tool for helping engage students and develop critical thinking skills (Wells 2018). This research builds on previous scholarship by comparing the critical thinking skills of students completing the political meme activity with students completing a traditional argumentative essay assignment. Given that argumentative essays encourage students to make inferences, recognize assumptions, make deductions, interpret statements, and evaluate arguments, an argumentative essay assignment is a fair assignment to use as a comparison to the political meme activity.

During the spring semester of 2019, students in sections of POLS 1101 American Government were assigned either the political meme activity or the traditional argumentative essay. The political meme activity asked students to generate a political meme that took a stance related to American politics or public policy, broadly defined. The students were allowed to caption images of their own or use popular memes from the internet (e.g. Mocking SpongeBob; Philosoraptor). In addition to creating a meme, they were asked to write an essay explaining their stance and providing evidence for their position. The full instructions for the activity are included in Appendix A. Students assigned the traditional argumentative essay were allowed less flexibility than those assigned the political meme. While students assigned the meme could form any political argument of their choosing, students assigned the argumentative essay were given five options. They could build an argument about the Constitution and government control, immigration laws and federalism, civil rights and voter turnout, political socialization and public opinion, or politics and Supreme Court nominations. The traditional argumentative essay instructions were adopted from the course supplementary materials provided to instructors using *The Logic of American Politics* (Kernell et al. 2015). Students chose one of the five options and wrote a three to five page argumentative essay defending their position. The complete instructions for the argumentative essay are included in Appendix B.

Three sections of POLS 1101 were assigned the political meme and two sections were assigned the traditional argumentative essay. Two sections assigned the meme were seated and one was an online section. One section assigned the traditional argumentative essay was seated and one was an online section. Ideally, a roughly even number of students would have been given each assignment. However, instructor course schedules and section enrollment ultimately played a role in determining the number of students completing each assignment. Though the students were not randomly assigned to an activity, the students had no way of knowing which sections would complete each assignment and therefore could not self-select into a group based

on their assignment preference. Of 209 students in various sections, 135 were assigned the political meme activity and 74 were assigned the traditional argumentative essay. A total of 81 students completed the survey. Of those students, 75% were traditional college age students (18-24), 68% were female, and 66% were black.

The students were provided instructions for the assignment and the instructors of the sections clarified any questions they had. Following the completion of the assignment, all students were asked to complete a survey. No extra credit was given to the students and no identifying information was collected. Instructors did allow students to complete the survey in-class if they chose. Student participation was completely voluntary and did not influence their final course grade. The response rate for the survey (38.76%) is modest, but instructors were sure to not offer any incentives like extra credit for completing the survey in order to encourage students to be honest when providing answers and feedback.

The survey students were asked to complete had three substantive parts. First, students were asked about their perceptions of the assignment. They were asked if they believed the assignment helped improve their ability to recognize factual statements, normative statements, interpretive statements, and causal statements. They were also asked if they believed the assignment improved their ability to make inferences, recognize assumptions, make deductions, and evaluate arguments. Second, students were tested on each of these items. They were given statements to recognize as one of the four informational statement types identified Fitzgerald and Baird (2011). Third, they were given a number of questions adopted from the Watson-Glaser Critical Thinking Appraisal designed to measure the various levels of critical thinking. The full set of survey questions is presented in Appendix C. Once the surveys were completed, difference of means tests were performed on the data to determine if students perceived the political meme activity similarly to the traditional argumentative essay in regards to critical thinking skills and to see if students who completed the political meme activity performed similarly to those who completed the argumentative essay on questions designed to measure critical thinking skills.

Results

Student memes demonstrated their knowledge and understanding of American politics and public policy. For example, one student submitted a meme where a group of people are sitting around a conference table. One person in the meme asks what needs to be done to control illegal immigration. Two people at the table recommend “build a wall” and “separate children from parents.” The third person suggests, “how about making citizenship easier?” The third person is then seen being thrown out the window of the conference room. The student used this meme to make a statement and demonstrate their knowledge of proposed immigration policies and to offer a solution that is often not well-received. Their essay builds the argument in favor of easier immigration standards as a solution to the problem of illegal immigration.

Another similar meme regarding immigration policy shows a mother being frisked by a border patrol agent while her toddler cries. The upper caption of the meme reads “pursuit of happiness” and the bottom caption simply reads “where?” This student chose to criticize immigration policy by pointing out the hypocrisy of the child separation policy of the Trump Administration in the United States where people are supposed to have the right to “life, liberty, and the pursuit of happiness” as stated in the Declaration of Independence.

The content of the memes demonstrated that students had a basic knowledge of politics. However, the primary purpose of the research was to evaluate the impact of the exercise on the development of critical thinking skills. We administered a survey that comprised eight questions that measured the perceptions of students regarding how much they believed the assignments helped develop their critical thinking skills. Students were asked to select an answer on a scale ranging from “strongly agree” to “strongly disagree.” These questions were combined to measure the overall perceptions of students, resulting in a scale ranging from 0 to 32. High scores represent strong agreement that the assignment helped develop critical thinking skills and low scores represent strong disagreement that the assignments helped critical thinking skills. The results presented in Table 1 show that students assigned the political meme activity perceived the activity to be helpful to developing their critical thinking skills similarly to those assigned the traditional argumentative essay.

Table 1. Student Perceptions of Assignments

Assignment	Observations	Mean	Standard Deviation
Political Meme	63	25.02	6.39
Argumentative Essay	18	25.5	4.37
Combined	81	25.12	5.98

$\Pr(|T| > |t|) = 0.76$

Note: Difference of Means performed between Political Meme group and Argumentative Essay group.

The second part of the survey asked students to identify different types of informational statements including factual, causal, normative, and interpretive statements. These questions were combined to create a scale of 0 to 4, where 4 represents correctly identifying all informational statements. Students who completed the political meme activity performed similarly to those who completed the traditional argumentative essay. Table 2 presents the results for students identifying informational statements.

Table 2. Student Identification of Informational Statements

Assignment	Observations	Mean	Standard Deviation
Political Meme	63	1.86	1.03
Argumentative Essay	18	1.88	1.23
Combined	81	1.86	1.07
$\Pr(T > t) = 0.91$			

Note: Difference of Means performed between Political Meme group and Argumentative Essay group.

Finally, students were asked to answer selected questions from the Glaser-Watson Critical Thinking Appraisal. The specific sample of questions were borrowed from a freely available critical thinking test developed by Assessment Day (2013). The questions were combined to create a scale from 0 to 5, where 0 indicates that the student answered all five questions incorrectly and 5 indicates that the student answered all five questions correctly. Students who completed the political meme activity performed similarly to those who completed the traditional argumentative essay. Table 3 presents the results for the evaluative questions on the survey.

Table 3. Student Performance on Evaluative Questions

Assignment	Observations	Mean	Standard Deviation
Political Meme	63	3.25	0.98
Argumentative Essay	18	3.44	1.34
Combined	81	3.3	1.07
$\Pr(T > t) = 0.51$			

Note: Difference of Means performed between Political Meme group and Argumentative Essay group.

Taken together, the results show that the political meme activity is a legitimate alternative to a traditional writing assignment for aiding critical thinking skills. Students were enthusiastic about this innovative assignment and performed similarly to those who completed a traditional writing assignment on a critical thinking assessment.

Implementation of the Political Meme Activity

Establishing that the political meme activity is a useful tool for helping students develop critical thinking skills is one step. However, it is also important to consider how else the students can benefit from the activity. One instructor encouraged their students to present their memes to the class and had the students discuss their memes. Specifically, the instructor encouraged the student to explain the ideological position they took when creating the meme and asked the students to discuss if they felt the meme actually represented that stance. The instructor then encouraged the students to consider the response to the meme from the opposite end of the political spectrum and discuss that reaction. This was done to encourage students to consider the importance of messaging and civility when discussing political issues. Overall, the students enjoyed this discussion and collectively stated that considering the other side helped them strengthen their own arguments about their meme. This discussion also led one student to recreate their meme and resubmit it because the original message failed to resonate with their peers. Overall, the peer-review of memes strengthened the critical thinking of the students and helped them develop their own arguments.

Given the amount of false information spread on the internet, the political meme activity gives students a great opportunity to think critically about the content they see on social media, often presented in memes. Students may leave the classroom with a better understanding of the importance of verifying the items they read on the internet because they often present incomplete or false information.

Students can benefit from deconstructing their own memes too. Instructors may want to challenge the students following completion of the assignment to think about the weaknesses of their own argument and consider how someone with the opposing view would criticize their argument. Students can further develop their critical thinking skills by forming a counterargument against a position they already hold.

Conclusion

Although not directly asked about how much they enjoyed the political meme activity, students did express that they enjoyed the assignment on instructor evaluations. When asked on the evaluation to explain the highlights of the class, some wrote that the political meme activity was a highlight. For example, one student responded, “I consider the political meme essay a strong point.” Another student wrote, “the project where we had to create a meme was enjoyable.” Finally, one student wrote that they appreciated the incorporation of a recent cultural element into the class, referring to the increased presence of internet memes.

Political memes have become a dominant part of the social media age. False information can be spread quickly, and it is important for students to develop strong critical thinking skills, so they know when to be skeptical of the things they read on the internet. The political meme activity engages students, allows them to express themselves, but also serves several educational purposes. It allows students to recognize the difficulty of presenting complete factual information in a single meme. It challenges students to build an argument based on a single statement made in a meme. Finally, it helps students develop critical thinking skills similarly to that of the traditional argumentative essay. Instructors should strongly consider implementing the political meme activity as a fun and educational assignment.

References

- Allcott, Hunt, and Matthew Gentzkow. 2017. “Social Media and Fake News in the 2016 Election.” *Journal of Economic Perspectives* 31, no.2: 211-236.
- Assessment Day. 2013. “Watson Glaser Critical Thinking Appraisal.” Accessed February 5, 2018. <https://www.assessmentday.co.uk/watson-glaser-critical-thinking.htm>.
- Borzsei, Linda K. 2013. “Makes a Meme Instead: A Concise History of Internet Memes.” *New Media Studies Magazine* 7: 2-28.
- Brent, Rebecca and Richard M. Felder. 1992. “Writing Assignments: Pathways to Connections, Clarity, and Creativity.” *College Teaching* 40, no.2: 43-47.
- Burbules, Nicholas C., and Rupert Berk. 1999. “Critical Thinking and Critical Pedagogy: Relations, Differences, and Limits.” In *Critical Theories in Education: Changing Terrains of Knowledge and Politics*, ed. Thomas S. Popkewitz and Lynn Fendler, 45-66. New York: Routledge.
- Condon, William and Diane Kelley-Riley. 2004. “Assessing and Teaching What We Value: The Relationship Between College-Level Writing and Critical Thinking Abilities.” *Assessing Writing* 9: 56-75.
- Damron, Danny, and Jonathan Mott. 2005. “Creating an Interactive Classroom: Enhancing Student Engagement and Learning in Political Science Courses.” *Journal of Political Science Education* 1, no.3: 367-383.
- Davison, Patrick. 2012. “The Language of Internet Memes.” In *The Social Media Reader*, ed. Michael Maniberg. New York: New York University Press.
- Dawkins, Richard. 1976. *The Selfish Gene*. Oxford: Oxford University Press.
- Frederking, Brian. 2005. “Simulations and Student Learning.” *Journal of Political Science Education* 1: 385-393.
- Fitzgerald, Jennifer, and Vanessa A. Baird. 2011. “Taking a Step Back: Teaching Critical Thinking by Distinguishing Appropriate Types of Evidence.” *PS: Political Science & Politics* 44, no.3: 619-624.
- Gottfried, Jeffrey, and Elisa Shearer. 2016. “News Use Across Social Media Platforms 2016.” Pew Research Center, May 26. <http://www.journalism.org/2016/05/26/news-use-across-social-media-platforms-2016/>

- Hassan, Karma El and Ghida Madhum. 2007. "Validating the Watson Glaser Critical Thinking Appraisal." *Higher Education* 54, n.3: 361-383.
- Howard, Larry W., Thomas Li-Ping Tang, and M. Jill Austin. 2015. "Teaching Critical Thinking Skills: Ability, Motivation, Intervention, and the Pygmalion Effect." *Journal of Business Ethics* 128, no.1: 133-147.
- Kernell, Samuel H., Gary C. Jacobson, Thad Kousser, and Lynn Vavreck. 2015. *The Logic of American Politics 7th Edition*. Thousand Oaks, CA: CQ Press.
- Moon, Jennifer A. 2008. *Critical Thinking: An Exploration of Theory and Practice*. London, UK: Routledge.
- Oros, Andrew L. 2007. "Let's Debate: Active Learning Encourages Student Participation and Critical Thinking." *Journal of Political Science Education* 3, no.3: 293-311.
- Pitt, Victoria, David Powis, Tracy Levett-Jones, and Sharyn Hunter. 2015. "The Influence of Critical Thinking Skills on Performance and Progression in a Pre-Registration Nursing Program." *Nurse Education Today* 35: 125-131.
- Pleschova, Gabriela. 2007. "Unusual Assignments as a Motivational Tool." Paper presented at the conference on Creativity or Conformity? Building Cultures of Creativity in Higher Education, University of Wales Institute, Cardiff, U.K.
- Shellman, Stephen M. and Kursad Turan. 2006. "Do Simulations Enhance Student Learning? An Empirical Evaluation of an IR Simulation." *Journal of Political Science Education* 2: 19- 32.
- Vargo, Chris J., Lei Guo, and Michelle A. Amazeen. 2018. "The Agenda-Setting Power of Fake News: A Big Data Analysis of the Online Media Landscape from 2014 to 2016." *New Media & Society* 20, no.5: 2028-2049.
- Watson, Goodwin, and Edward Maynard Glaser. 1952. *Watson-Glaser Critical Thinking Appraisal*. Yonkers, NY: World Book Company.
- Wei Liu I. and Pornpimol Sukavatee. 2019. "The Effects of Debate Instruction Through a Flipped Learning Environment on Critical Thinking Skills of Thai High School Students." *Scholar: Human Sciences* 11, no.1: 239-247.
- Wells, Dominic D. 2018. "You All Made Dank Memes: Using Internet Memes to Promote Critical Thinking." *Journal of Political Science Education* 14, no.2: 240-248.

Appendix A

Political Meme Activity Instructions

Students will generate an original meme related to U.S. politics and/or U.S. public policy. Students are encouraged to caption their meme using Meme Generator (<https://imgflip.com/memegenerator>) or Quick Meme (<http://www.quickmeme.com/caption>). However, they may also choose to caption their image in a Word document. The caption must be an original caption written by the student. Students who turn in a popular meme from social media with an unoriginal caption will not receive credit. Though the caption must be the original work of the student, students may choose to use a popular meme image (e.g. socially awkward penguin; Futurama Fry; Philosoraptor; Lazy College Senior; Captain Hindsight). Students may caption their own image (e.g. a personal photo). Meme content must be appropriate for Academic work. Students will write a short essay 3 to 5 double-spaced pages in length (not counting the meme) of how the meme is relevant to U.S. politics or U.S. public policy and defending the position they take in the meme. Students will upload a Word document with the meme, their essay, and a reference page to D2L.

The first page of the assignment should feature the political meme. The following pages should include their essay. The essay should cover any personal relevance (if any) and explain how the meme relates to American politics and/or American public policy. The essay should also defend the position taken in the meme with evidence. At least three credible sources should be cited in support of the position taken by the meme. Academic studies and peer-reviewed journal articles are ideal, but credible news sources (e.g. New York Times; Wall Street Journal) or reports from credible research firms (e.g. Pew Research Center) are also acceptable. Essays should be double-spaced and written in 12-point Times New Roman font with 1-inch margins. Sources should be cited according to APSA style guidelines with a references page and in-text citations. The completed assignment must be uploaded to D2L by 11:59pm on [enter due date].

Appendix B

American Politics Essay Instructions

A list of questions related to topics covered in class is presented below. Please select one question to address in a 3 to 5-page essay. You will be graded on the content of your answer, but there are no “right” or “wrong” answers. You will be graded based on how well you defend your position. You will also be graded on the structure of your essay, including grammar and spelling. Be sure to proof-read your papers prior to turning them in. The essay must be uploaded to D2L by the essay due date. The essay is due on [enter due date] at 11:59pm. Late assignments will be penalized 10% for each day they are late not including weekends. The essay must be typed, double spaced, with one-inch margins, using Times or Times New Roman 12-point font. The essay must contain three sources and one of the sources must be the course textbook. In-text citations must be used in the body of the essay and a references page must be attached to the back of the essay. Citations should be in APSA format. Students may use academic and non-academic sources. Mainstream news sources such as the New York Times, Wall Street Journal, or major news networks are acceptable, but students should avoid sources such as Wikipedia or personal blogs. Please indicate which question you are answering at the top of the first page of your essay (list the question or include the number of the question you have decided to answer).

1. How well did the Framers succeed in creating a constitution that forces the government to control itself?
2. Research recent immigration laws passed by one of the following states: Arizona, Georgia, or Alabama. Then, make a case for whether immigration policy is an area better left to the federal government, to individual states, or to both as a part of shared federalism.
3. Describe the struggles faced by two of the following groups in securing the right to vote: African Americans, women, and Hispanics. Then, research and identify what percentages of these two groups were registered to vote in 2016 and what percentage actually voted in the 2016 presidential election. Given the struggles these groups have faced in securing the right to vote, why do you think voting rates are at this level? What might this suggest about the current status of civil rights in this country?
4. Identify the biggest differences in public opinion between younger generations (e.g. post-Millennials; Millennials) and older generations (e.g. Baby Boomers). What factors help explain these differences? How do socialization and opinion leaders play a role?
5. Examine how the members of the Senate have voted on recent nominations to the Supreme Court, available here: <http://www.judiciary.senate.gov/nominations/supreme-court/committee-votes> What evidence is there that partisanship influences confirmation votes? Why should these Senators care about justices’ political views?

Appendix C

Critical Thinking Survey

Informed Consent

In sections of POLS 1101 American National Government, Dr. Wells, Dr. Meddaugh, and Mr. Pena are investigating the effectiveness of two writing assignments in developing critical thinking skills. Some sections of POLS 1101 are assigned the Political Meme Argumentative Essay activity and others are assigned the traditional Argumentative Essay. Completion of the activity assigned to the course is part of the course requirement and grades are awarded for each activity as noted in your syllabus.

However, you have the option of completing a survey regarding the effectiveness of the activity regarding the development of critical thinking skills. The survey is designed to measure your perceptions of the activity and your critical thinking. If you consent, you will complete a survey as part of our research. This survey has no impact on your grade for the assignment and no identifying information will be connected to your survey answers. Once the surveys are completed, results will be analyzed to compare the effectiveness of the Political Meme Argumentative Essay to that of the traditional Argumentative Essay.

It is expected that this survey will take approximately 30 minutes to complete.

Your participation in this research is confidential. Data collection methods do not ask for any information that would identify your responses. In the event of any publication or presentation resulting from this research, no personally identifiable information will be shared because your name is in no way linked to your responses.

Please contact Dr. Dominic D. Wells at (678) 466-4613 or dominicwells@clayton.edu with questions or concerns about this study. If you have questions about your rights as a participant in this research, please contact Dr. Jill Lane, Associate Provost, at (678) 466-4100 or JillLane@clayton.edu.

Students who choose to participate will not be compensated.

1. Your decision to be in this research is voluntary. You can stop at any time. You do not have to answer any questions you do not want to answer. You must be 18 years of age or older to take part in this research study. Do you wish to participate?

Yes

No

2. Which activity were you assigned?

a. Political Meme Essay

b. Argumentative Essay (without a meme)

3. What type of American National Government course did you attend?

a. Seated

b. Online

4. *Factual statements* are statements that can be verified as true or false. How much do you agree with the following statement: The essay assignment improved my ability to recognize factual statements.

a. Strongly Disagree

b. Somewhat Disagree

c. Neither Agree nor Disagree

d. Somewhat Agree

e. Strongly Agree

5. *Normative statements* are statements that express values of right and wrong, good and bad. How much do you agree with the following statement: The essay assignment improved my ability to recognize normative statements.

a. Strongly Disagree

b. Somewhat Disagree

c. Neither Agree nor Disagree

d. Somewhat Agree

e. Strongly Agree

6. *Interpretive statements* are statements that derive from textual materials to establish intended meaning of the author. Arguments made from the text can be advanced or countered using the same text. How much do you agree with the following statement: The essay assignment improved my ability to recognize interpretive statements.

a. Strongly Disagree

b. Somewhat Disagree

c. Neither Agree nor Disagree

d. Somewhat Agree

e. Strongly Agree

7. *Causal statements* are statements that make an observable argument of cause and effect between two concepts. How much do you agree with the following statement: The essay assignment improved my ability to recognize causal statements.

- a. Strongly Disagree
- b. Somewhat Disagree
- c. Neither Agree nor Disagree
- d. Somewhat Agree
- e. Strongly Agree

8. *Inference* is the ability to derive logical conclusions from premises of varied approaches. How much do you agree with the following statement: The essay assignment improved my ability to make inferences.

- a. Strongly Disagree
- b. Somewhat Disagree
- c. Neither Agree nor Disagree
- d. Somewhat Agree
- e. Strongly Agree

9. *Recognition of assumptions* involves the ability to recognize assumption in presuppositions implicit in approaches. How much do you agree with the following statement: The essay assignment improved my ability to recognize assumptions.

- a. Strongly Disagree
- b. Somewhat Disagree
- c. Neither Agree nor Disagree
- d. Somewhat Agree
- e. Strongly Agree

10. *Deductions* involve the ability to judge whether propositions made can be logically drawn from evidence. How much do you agree with the following statement: The essay assignment improved my ability to make deductions.

- a. Strongly Disagree
- b. Somewhat Disagree
- c. Neither Agree nor Disagree
- d. Somewhat Agree
- e. Strongly Agree

11. *Evaluation of arguments* involves the ability to distinguish relevant, strong, and weak arguments. How much do you agree with the following statement: The essay assignment improved my ability to evaluate arguments.

- a. Strongly Disagree
- b. Somewhat Disagree
- c. Neither Agree nor Disagree
- d. Somewhat Agree
- e. Strongly Agree

12. The statement, "Economic anxiety and racial tensions led to the election of President Donald Trump" is an example of which of the following?

- a. Factual Statement
- b. Normative Statement
- c. Interpretive Statement
- d. **Causal Statement**

13. The statement, "Well-funded public schools are good for society" is an example of which of the following?

- a. Factual Statement
- b. **Normative Statement**
- c. Interpretive Statement
- d. Causal Statement

14. The statement, "Barack Obama served two terms as President of the United States" is an example of which of the following?

- a. **Factual Statement**
- b. Normative Statement
- c. Interpretive Statement
- d. Causal Statement

15. The statement, "According to the Constitution of the United States, all citizens have the right to keep and bear arms" is an example of which of the following?

- a. Factual Statement

- b. Normative Statement
- c. **Interpretive Statement**
- d. Causal Statement

16. Despite the economic downturn, Germany's GDP has risen more since 2002 than any other European country. In addition to this, Germany's unemployment rate in 2012 was at a record low. The Social-Democrat government has implemented several successful reforms since 2003, resulting in the reduction of its budget deficit and liberalizing labor market rules. In addition, their German system of apprenticeships and training has helped to reduce youth unemployment; a common problem throughout Europe.

According to the paragraph above, *statistics suggest that in 2012 Germany had the lowest unemployment rate in history.*

- a. **True**
- b. Probably True
- c. More Information is Needed
- d. Probably False
- e. False

17. Public sector organizations undergo organizational changes more often than private sector organizations. This change may cause a drop in employee satisfaction rates and an increase in staff turnover in public sector organizations.

According to the paragraph above, *the mood of public sector staff is affected by organizational change.*

- a. **Assumption Made**
- b. Assumption Not Made

18. A poll held in May 2012 noted that the British government were trusted by only two thirds of the British population. There were three reasons for this. Firstly, the government were blamed for a return to recession. Secondly, the Prime Minister was seen as out of touch. Finally, all governments face midterm slumps in popularity.

According to the paragraph above, *all Prime Ministers are out of touch.*

- a. Conclusion Follows
- b. **Conclusion Does Not Follow**

19. Elaine is an events planner for a company called Top London Events. She specializes in themed parties and caters to London's young professionals. Elaine is also the most popular member of staff at Top London Events.

According to the paragraph above, *people at Top London events are more likely to want to work with Elaine than other employees.*

- a. **Conclusion Follows**
- b. Conclusion Does Not Follow

20. Should employers be bound by law to encourage diversity in the workplace? Analyze the following argument: *Yes, encouraging diversity in the workplace will ensure a variety of opinions, promoting creativity and innovation.* Is this a strong argument or a weak argument?

- a. **Strong Argument**
- b. Weak Argument

21. What is your age?

- a. 18 to 24 years old
- b. 25 to 34 years old
- c. 35 to 44 years
- d. 45 or older

22. What is your gender?

- a. Male
- b. Female
- c. Other (please specify)
- d. Prefer not to say

23. What is your ethnicity?

- a. White
- b. Hispanic or Latino
- c. Black or African American
- d. Native American or American Indian
- e. Asian/Pacific Islander
- f. Other