

Biological Psychology Writing Initiative Report (WDI, PSY290H5)

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This past year created the first series of writing assignments for Psychology 290 (Biological Psychology). The intention is to give our second year students some intentional writing exercises that better prepare them for critical writing analyses in our 3rd and 4th year courses. Historically, we have not provided any systematic writing exercises in second year, leaving many students struggling with the demanding writing requirements of our senior level courses. In this initiative, my hope is to create a writing initiative that will support the development of critical writing skills that will benefit students

The key goals are to stimulate critical reading and communication skills in the nature of a 'scientific critique'. This is a very common style of written assignment that are expected of students in year 3 of our program. My intention is to provide students with writing experiences that connect to their current knowledge, and provide them with an opportunity to think critically about those pieces. My approach is to provide them with 'simplified' critique experiences by comparing neuroscience related claims made in popular media outlets (e.g. Huffington Post) to the actual research article that the assessment is based upon. An example of such media headlines are "Having Sex Makes You Smarter", or "Eating Cheese Boosts Self Control". The nature of these headlines are intended to be 'catchy' and immediately connect with readers.

To scaffold the experience, this writing initiative was carried out in two stages:

First, students were asked to read one of two selected media articles to understand the claims being made in the popular media article. They were then asked to write about the assignment in a classic "Says/Does" assignment where they first identify the content of the article (what the article "says") followed by a indication of what the author is accomplishing by presenting this information (what the author "Does").

In the Second stage of the writing initiative, students were asked to identify the published, peer-reviewed scientific journal article that the media article was based upon (Stage 2 was called "Neuroscience in the Media"). Once found, students were asked to provide a summary of the research paper, including how the research was performed and what was found. Finally, students were asked to reflect back upon the media article to assess the validity of claims made

in the media (Does sex ‘actually’ make us smarter), to identify limits of what we can or cannot conclude from the research presented. This comparison is a simple, but effective approach to fostering critical thinking skills in our students.

To support student skill development, students received;

- In class instruction
- Detailed written instruction
- TA office hour support
- Drop-in hours with RGASC.

TA’s also received training on grading written work through RGASC, benchmarking grading training and support in making constructive feedback.

To capture student perception of the writing initiative, I created a 9 question survey at the end of term relating to students perception of effectiveness, value, and constructive criticism of both stages of the assessment. The survey was created on Portal and students received 1% towards their course participation credit for completing the survey. 188 students (of 265 total students) responded to the survey by the end of term.

Students were asked 9 Questions using a 5 point rating system: *Strongly Agree* (5), *Agree* (4), *Neither agree nor disagree* (3), *Disagree* (2), *Strongly disagree* (1)

The following questions capture overall student perception of the overall benefit of both assignments:

Questions that capture broader contributions of both writing assignments	(Average Rating)
<i>Written assignment provided opportunities to develop my critical thinking.</i>	4.1
<i>The course assignments provided opportunity to learn / develop scientific search skills.</i>	4.29
<i>Assignment #3 and #4 provided opportunities to critically evaluate written work (i.e., the media article).</i>	4.15
<i>“Assignment #3 and #4 have helped to improve upon my critical reading skills.”</i>	4.18
<i>The learning experiences of assignments #3 and #4 will benefit you in future writing assignments in other courses.</i>	4.04

In specific contribution towards Stage 1 (Says/Does writing exercises), students responded to the following questions:

Questions targeted towards the contribution of Stage 1 (“Says/Does”) assignment	(Average Rating)
<i>I was provided with sufficient instruction to complete the “Says/Does” writing assignment</i>	4.0
<i>I see value in assignment #3 (“Says/Does”) as a part of my academic development.</i>	3.66

In specific contribution towards Stage 2, students responded to the following questions:

Questions targeted towards the contribution of Stage 2 (“Neuroscience in the Media”) assignment	(Average Rating)
<i>While completing Assignment #4 (“Neuroscience in the Media”), I had clear instructions on each section of the assignment</i>	4.04
<i>I see value in assignment #4 (“Neuroscience in the Media”) as a part of my academic development.</i>	4.10

When reviewing the analysis of the feedback given, it has become apparent that, students are positively perceiving the overall two-stage writing assignment. In this section, an average rating of 4.15, suggesting that they do agree that student are benefitting from this writing initiative and they perceive this writing assessment as a beneficial part of their academic development. The positive ratings do, in part, reflect the introductory nature of the assignment. In particular, the topic selection is relevant to the course, the main concepts are interesting and easy to understand, and the critical comparisons are more easily made than traditional ‘critique’ style essays.

Interestingly, the assessments for the individual stages of the assignments are actually lower than the overall ratings. Particularly, students were less likely to agree that the Stage 1 (Says/ Does) writing assignment was of value to them. In discussion with students, they report that the assignment itself is too ‘mechanical’ in nature and creates an awkward structure of writing. While I do see value within this assignment, it must be revised to create a more natural flow to it.

While students do agree that the instruction of both Stages are clear (Average rating = 4.02), there is much room for improvement. In this semester, students were given oral instruction in

lecture, followed by written instructions provided on line. Students have expressed that they would also benefit from sample assignment submissions and I am happy to do so for them. I will also be considering other means to provide clear and informative instructions to my students.

In future offerings of these writing assignment, I will expand our assessment to include more observations from graders (Teaching Assistants) to identify common areas of strength and weakness in the hopes that we can better capture evidence of learning from our students. Furthermore, I would love to create a pre- and post-assessment questionnaire that assesses changes in student writing efficacy.

Finally, I am sincerely thankful for the help, guidance, and support of the RGASC, including Michael Kaler and Tyler Tokaryk. The input of writing experts has served to benefit my course to create better writing activities and the financial support of the RGASC has made this activity possible.