2018-2019 PS4060: The Impact of Psychological Research Review

Meeting times: 6 x 1 hour mandatory meetings Wednesdays 10-11AM, Room 1.06, School of Psychology & Neuroscience

Assessment: 4000-word review essay, the title and one-page outline of which must be submitted for approval to Dr Eric Bowman by Monday the 26th November 2018 at 5PM in MMS. Final submission is due Friday the 8th of March 2019 by 5PM in MMS.

Credits: 15

Lecturer: Dr. Eric Bowman

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Please put 'PS4060' in the subject heading of any electronic communication.

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Overview

In this module, you will choose a key psychological research article and write an essay reviewing the paper's historical antecedents, its impact on academic psychology, and its impact on society. In essence, you will present the academic and social history of the key article. You will receive some feedback in the early stages of writing the essay, but the essay is meant to be primarily a piece of independent scholarship. The topic of the essay is meant to allow you to focus reading and thinking on an area of psychology that you choose and to explore how academic research is translated into social outcomes.

Approach

Although this is a mostly *unsupervised* essay, the module provides training with regard to writing reviews. The training consists of 6 x 1-hour sessions distributed throughout semester 1 to assist you in choosing the focus of your review, defining its scope, developing a formal argument about the state of the relevant scientific literature, understanding the process of meta-analysis, and using computer software in technical writing. Attendance will be taken at 4 of these sessions and you will receive an academic alert if you miss a given session without providing an appropriate self-certification. Additionally, Dr. Bowman will have office hours each week during which you can discuss any technical or general issues relevant to planning and writing the review essay. Please be aware that you cannot be advised *what* to write, but you can be given limited guidance and tips on *how* to write the review essay.

Module aims

The aims of this module are:

1. To provide students with experience of putting psychological research into its scientific and social context.
2. To provide students with experience at assessing the ethics of research.
3. To provide experience of using structured argumentation to generate a full scientific review.
4. To provide guidance on the mechanics of technical writing.
5. To familiarise students with systematic reviews of scientific literature, including meta-analysis.
6. To provide experience in performing independent scholarly writing

Objectives

By the end of the module, each student should be able to:

1. Be familiar with the issues that arise when trying to judge the scientific and social impact of psychological research.
2. Understand how good reviews differ from uncritical lists of summaries of scientific studies.
3. Conduct a systematic bibliographic search for information relevant to a given area in psychology.
4. Organise material obtained from multiple scientific studies so that patterns across studies can be observed.
5. Be familiar with the word-processing techniques used to write a structured technical document.
6. Be familiar with the fundamental principles of meta-analysis.
7. Be able to structure an evidence-based argument in a persuasive way.
8. Be able to *independently* plan and write a review focused on a specific domain of research literature.

Transferable skills

The practical skills that this module provides an opportunity to practice are:

1. Writing structured technical documents using word processing software
2. Using academic and non-academic electronic databases to search for information
3. Writing clearly about scientific results and analyses
4. Working independently to deadlines
5. Analysing critically scientific claims
6. Combining disparate sources of conceptual and empirical information into a coherent framework
7. Documenting and evaluating the impact of research on society

Lecture sessions

1. Introduction
   a. What role does psychology play in society?
   b. The story of a paper

    c. Module requirements

    d. What are the potential purposes of a review of the scientific literature?

    e. Delineating a paper's contributions to science and society

2. Selecting articles to include in a review

    a. Selecting an important paper to review

    b. Defining the focus and scope of the review

    c. Performing a systematic bibliographic search

    d. What makes a psychological study important?

3. Structuring a clear and persuasive argument for a review

    a. Defining a structure that creates added utility beyond simple summarisation

    b. Using word processing software with headings, styles, and tables of contents

    c. Using word processing to create an outline of a review

4. Systematic reviews of scientific literature

    a. Inclusion and exclusion criteria

    b. Meta-analysis

    c. Examples of research weaknesses in psychology raised by meta-analysis

    d. Should all psychology data be made available for public review and meta-analysis?

5. The impact of psychology

    a. Impacts, stakeholders, and the importance of psychology to society

    b. Why is psychology funded?

    c. Determining the impact of a psychological research report

6. The ethical dimensions of psychology & discussion of review papers.

    a. The ethical implications of human, animal, and machine research in psychology

    b. Do psychology and/or psychologists pose a potential threat to society?

    c. What did students get right and wrong in writing the review essay last year?

    d. Preparing and submitting the proposed title and outline for your review.

Selection of paper on which to focus the review

    You are to select a major primary research paper from the psychological research literature, describe its scientific antecedents, report on its impact for the understanding of psychology, and assess its impact on society at large. You must select a paper published in 2008-2013 that is not selected by any other student and then submit the title and an outline of the review in late November. The paper must have at least 20 citations in academic journals. Dr. Bowman will confirm

that the paper is suitable and that the outline broadly conforms to the requirements of the module. However, please note that any feedback, including words of encouragement and interest about your review, are no guarantee of a high mark. Dr. Bowman can only give general guidance, so the success of your review will be up to your efforts.

Submission of work

There are three pieces of work that you must submit:

1. You must indicate your choice of paper in the relevant Moodle forum, where Dr. Bowman will indicate whether your choice is acceptable: Since no two students are allowed to select the same paper, this will be done on a first-come-first-approved basis. Thus, please check the approved papers in the forum in Moodle to make sure the paper you have chosen has not been selected by another student. Please remember that the paper you select must have been published between 2008-2013 and have 20 academic citations. You must submit a copy of the image of a Web of Knowledge citation map of the key article, showing the articles that cite it, as conformation. You must obtain approval for the paper you select before feedback will be given on any title and outline you submit. Please note that if you choose a paper that is also covered in another module or is relevant to your research project, that you must avoid self-plagiarism (submitting identical passages of your writing in more than one module).

2. You must submit a proposed title and outline of your review: This is due by Monday 26 November 2018 by 5PM in MMS. The outline must be in a structured format of section and subsection titles *only*. It must not contain passages of text. A document template will be posted in Moodle that you must use. Failure to submit the title and outline by the deadline will result in an academic alert for the module. You will receive feedback about whether the title and the outline are appropriate for the module, but you will be given limited guidance since the review is meant to reflect your independent analysis and scholarship.

3. You must submit the review: The review must be submitted by Friday, 8 March 2019 at 5PM in MMS. Like the title and outline, a compulsory document template will be posted in Moodle. The regulations regarding appropriate scholarly conduct can be found on the University's web site (http://www.st-andrews.ac.uk/students/rules/academicpractice/) and in the Honours Handbook (http://www.st-andrews.ac.uk/psychology/current/ug/).

Changing your mind about the key article

It is possible to change the key article on which you base the review. Before proposing a change, you should check the Moodle forum to be certain that another student has not chosen it. You also need to confirm that the new proposed key article fulfils the criteria with respect to date of publication and number of citations. If you have received feedback on a title and outline from an earlier paper that you have proposed, then no further feedback can be provided. Thus, consider the choice of your article carefully. Sometimes it is best to find an instance in which psychology has had a social impact and then work back to the original research literature that sparked the social impact.

Assessment

The marking sheet used to assess the review can be viewed at the beginning of the document template for the review, which can be found in Moodle. The marking sheet is general, but the markers will be specifically using the questions below to assess your review essay. You should keep these question in mind while choosing the key article, for if you do not think ahead it might not be possible to adequately address these questions (for instance, if a key article that you have selected has had no impact whatsoever).

1. Is the importance of the key research article well described?
2. Are the methods, findings, and conclusions of the key article summarised clearly?
3. Is the historical context (empirical and theoretical antecedents) of the key article well described?
4. Has the academic impact of the key article been well described in terms of theoretical advances, citations, stimulation of further research, and possible influence on academic fields related to psychology?
5. How well has *evidence* been used to trace chain of events between the publication of the key article and the relevant social outcomes been presented? Please be careful not to fall into the trap of describing potential social impacts of a paper! *Actual* social impacts should be the focus in the relevant section of the review. If you conclude that the key article should have had more social impact, then the barriers to the potential impact must be documented and discussed.

Please note that the markers might not be experts in the field of the key article, so write accordingly.

Schedule of sessions and deadlines

Date	Lecture/workshop topic(s) or deadline
19/9	Module introduction and discussion of impact of psychology on society
26/9	Selecting articles to include in a review
3/10	Structuring a clear and persuasive argument for a review (Please note attendance will be taken)
10/10	The systematic review of scientific literature (Please note attendance will be taken)
17/10	The impact of psychology (Please note attendance will be taken)
24/10	*Independent learning week (no lecture/workshop)*
26/10	*Suggested deadline for submission of request for key paper to Moodle forum*
31/10	The ethical dimensions of psychology & discussion of review papers (Please note attendance will be taken)
26/11	*Deadline for submission of outline: 26 November 2018 by 5PM in MMS*
8/3	*Deadline for submission of the review: 8 March 2019 by 5PM in MMS*