

Assignment 3. Writing a cognitive science essay

Don't worry if you haven't written an essay for a long time, if ever. This assignment will lead you through what to do and give you some of the skills of essay researching and writing. It will break the process down into its constituent parts.

With an essay, there isn't typically a right or a wrong answer. But there are mistakes you can make and things you can do well. This assignment counts for 20% of your overall mark for the course.

Start by taking a look at this paper (the pdf is provided on the Assignments webpages):

Sinha, P., Balas, B., Ostrovsky, Y., & Russell, R. (2006). Face recognition by humans: Nineteen results all computer vision researchers should know about. *Proceedings of the IEEE*, 94(11), 1948-1962.

- (1) Choose one of the 19 results; just choose one that interests you.
- (2) Your essay is going to be about that topic or issue.
- (3) Use Google Scholar to find PDFs of THREE papers that relate to your topic. (You should do this from the University network, as the University has connections to the electronic journals and you will not have the connections at home, unless you set up a VPN so that your computer thinks it is part of the University network.) You find the PDFs by typing in to Google Scholar the relevant words of your topic. If you put the words in quotes, then Google Scholar will find the occurrences of just that phrase, which often helps. Below is an example of what you will see on the screen when you search Google Scholar (the search term here was "corpus callosum", used for some research unrelated to face recognition). Depending on the search term you use, you will be shown a large number of papers. By default, they are ordered according to relevance to the search term you used. But you can also sort them by date (see the left column, below, "Sort by date").

Scholar About 146,000 results (0.04 sec)

Articles

Case law

My library

Any time

Since 2016

Since 2015

Since 2012

Custom range...

Sort by relevance

Sort by date

☒ include patents

☒ include citations

☒ Create alert

Fiber composition of the human corpus callosum
F Aboitiz, AB Scheibel, RS Fisher, E Zaidel - Brain research, 1992 - Elsevier
Abstract The densities of fibers of different sizes were calculated in ten regions of the **corpus callosum** of twenty human brains (ten females, ten males). Light microscopic examination revealed a consistent pattern of regional differentiation of fiber types in the **corpus** ...
Cited by 945 Related articles All 9 versions Cite Save

Increased corpus callosum size in musicians
G Schlaug, L Jäncke, Y Huang, JF Staiger... - Neuropsychologia, 1995 - Elsevier
Using in-vivo magnetic resonance morphometry it was investigated whether the midsagittal area of the **corpus callosum** (CC) would differ between 30 professional musicians and 30 age-, sex-and handedness-matched controls. Our analyses revealed that the anterior half ...
Cited by 658 Related articles All 22 versions Cite Save

Sexual dimorphism in the human corpus callosum
C DeLacoste-Utamsing, RL Holloway - Science, 1982 - science.sciencemag.org
Abstract Preliminary observations suggest a sex difference in the shape and surface area of the human **corpus callosum**. The sexual dimorphism is striking in the splenium, the caudal or posterior portion of the **corpus callosum**. The female splenium is both more bulbous and ...
Cited by 688 Related articles All 6 versions Cite Save

Hand and sex differences in the isthmus and genu of the human corpus callosum
SF Witelson - Brain, 1989 - Oxford Univ Press
SUMMARY The midsagittal area of the **corpus callosum** was measured in its entirety and in seven subdivisions in a sample of 50 brains consecutively obtained from autopsies of individuals who had neuropsychological testing before death. A 12-item test of hand ...
Cited by 1177 Related articles All 7 versions Cite Save

[PDF] from nbu.bg

[PDF] from researchgate.net

- (4) If you click on the title of the paper, Google Scholar will typically send you to the location of an electronic version of that paper, where you can read the abstract of what the paper is about. Read the abstract and decide if it is a paper you wish to include in your essay. If it looks like a useful paper, then the journal may offer you the chance to download a PDF. In the example above, you can click to get a PDF straight from the Google Scholar page. If you cannot immediately find a PDF, try clicking on “All xx versions” in the Google Scholar report. Some of the references suggested by Google Scholar will not have an associated PDF; if that is the case, then choose another paper. The goal is to obtain PDFs of three papers. There are no absolutely right answers for the three papers you choose to illustrate your topic; you want to find three papers that hang together, that all refer to your topic. You will need to have a look through the paper to judge how relevant it is. You can read it *strategically*, reading its abstract, perhaps the beginning of the Discussion section, if it has one, where the authors will typically summarize their empirical results (if it is that sort of paper), and the conclusions at the end of the paper. If you cannot understand its conclusions, then choose another paper. (There are very probably going to be parts of any paper that you can't understand, such as the statistics used, or the technical details; not being able to understand absolutely all of the paper will not prevent you from being able to quote its conclusions.)
- (5) One of your three papers should be a *foundational* paper, perhaps the first paper that dealt with your topic, perhaps the paper that discovered the issue in the first place. It will probably be the oldest of the three papers you cite. It may be a paper that is referred to in the references at the end of the Sinha et al. paper. Google Scholar tells you how many other papers have cited it (e.g. “Cited by 945”). Being cited by a lot of other papers indicates that the paper is an important paper. It might be historically important, the first paper to raise the issue.
- (6) The second one of your three papers should be a very recent paper. When you are writing about something, you need to know the very latest research on that topic. Sorting the references by date will give you a choice of recent papers. Pick one that you think is interesting and relevant to your topic.
- (7) Your third paper is up to you to choose. It may be another very recent paper. It may be another paper referred to by the first very recent paper you chose. It may be one that a lot of other people have cited. You may want to refine your search term slightly to find something that is most relevant to your choice of a very recent paper. Sometimes a paper is referred to by a lot of other papers if it is a particularly good review of the field. For this essay, it might be best to avoid long review papers; but, depending on the exact topic, you could still pick a review paper and perhaps summarise its conclusions with respect to your particular topic.
- (8) You should now have PDFs of three papers all relating to your initial topic. You should look through them and decide what each is saying with respect to your topic. You don't need to include the real details, and you won't have room to include them in your essay.
- (9) Now construct your References, to go on a separate page at the end of your essay.
- (10) The format of your essay is going to be more or less APA style. See the sample paper available at this URL:
<https://owl.english.purdue.edu/owl/resource/560/18/>
- (11) To get the APA version of the reference for each of the three papers you cite, choose “Cite” in the Google Scholar page, and cut and paste the APA version provided. Be careful, though, as the Google Scholar version of the reference has been electronically generated, and may not be quite complete. Check this. You might have to add italicization, or correct commas, etc.
- (12) Include the APA reference for the Sinha et al. paper too. So that is four references in all.

- (13) Now write your Introductory paragraph. The introductory paragraph should be about half a page or 250 words. Say what the topic is, and why it is interesting and important. End by saying that you are going to look at three contributions to this topic (in your own words).
- (14) Now write the first of three separate paragraphs, each addressing one of the three papers you have chosen. Address the oldest, foundational paper first. Write a paragraph of about half a page or 250 words saying what the paper found, how it defined the issue. The sample APA paper will show you how to refer to scientific papers by means of the names and the year, in your essay. Watch out for the correct use of "&" and "and".
- (15) Now write the second of your three separate paragraphs, addressing the next of your three papers. Do not just cut-and-paste from the abstract of the paper when you describe its contribution. Say in your own words what they did and what they found. Again, half a page or 250 words is enough. It is harder to write concisely than to use a lot of words.
- (16) Now write the third of your three separate paragraphs, addressing the last of your three papers. Another half a page or 250 words. Don't get too hung up on counting the number of words.
- (17) Your whole essay should be double-spaced. The sample APA paper will show you what to do regarding paragraph breaks and all other aspects of formatting. Do not use any subheadings; the paragraph breaks will divide up your essay well enough.
- (18) Now write your concluding paragraph, another half a page or 250 words. Briefly draw any conclusions you think are justified from your reading of the three papers. Include your own ideas for any ways of extending such studies in the future, perhaps using a slightly different version of the technique used in the papers you have cited, or perhaps using slightly different stimulus materials or different participants, for instance.
- (19) Now go back and compose your title. Take a look at the titles of scientific papers to get some idea of what your title should look like. Do NOT make a jokey title! Make it informative, because people trying to find your paper will be using electronic searches for the words and phrases in which they are interested. You will see you that you can make your title more informative (i.e. longer) if you extend it using a semicolon. Look at what other authors do. Your title should tell the reader what is in the paper, what it is about.
- (20) Now compose an abstract for your paper. The abstract should give the reader more of an idea what is in your paper and what its conclusions are. It should be no more than about 50 words. It should follow the title.
- (21) Now pick four keywords. These should be the words most relevant to the content of your essay. They will help readers locate your assignment electronically. They should follow the abstract.
- (22) Now you've got your 1250-word essay, plus title, abstract, keywords and references! You've told the reader something about your particular topic. You've taken information from existing papers that you found, chose and studied, you've strung the ideas together in the format of a scientific paper, and you've brought the ideas together and perhaps added a suggestion or two of your own in the conclusion. Read it through to yourself to make sure that it coheres.
- (23) This is how the percentage marks will be distributed when your essay is marked.

Title: 4 marks

Abstract: 10

Keywords: 4

Introduction: 15

Paper-para 1: 15

Paper-para 2: 15

Paper-para 3: 15

Conclusion: 15

References: 7 (one mark subtracted for each missing bracket, incorrect italicization, missing comma, missing full stop, etc.)

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