Weeks	Template: persuasive writing using scientific evidence
13 **Apr 3** **to** **Apr 8** **14** **Apr 9** **to** **Apr 14**	**Final Essay – Apply persuasive scientific evidence (1.of.3)** **Objective:** write at least three paragraphs each arguing persuasively why hot dogs or potato chips because <argument>. ➢ Binary = for and.or against either ➢ NonBinary = not relating or involving just 2 things ➢ None = data type of NoneType class used to define a null variable or object in Python. New NoneType objects cannot be created. <extra credit> 1. Each paragraph is distinct = argue for chips then against chips. 2. Binary arguments take a piece of evidence that informs why hotdogs or chips are <argument> than chips or hotdogs. 3. Non-binary arguments incorporate multiple vectors into a single paragraph. Ex: chips are fattening, taste good, and contribute to obesity. Since fewer people go to college if chip packaging uses more “big words, " the majority are less likely to buy them and get fat. 4. None = figure out the wording and structure of a NoneType persuasive argument. Additional points could mean all points! Each paragraph must have: A) an ontological category, B) scientific evidence, C) persuasive discussion with increasing information gain per sentence, D) one or many paragraphs use authenticity in america in addition to scientific evidence. **Ontology overview** classic.ontology: smell, taste, color, deliciousness, life computer.ontology: bits, data, multimedia, representation transfer ➢ **information mapping**: fields, bits, and info to encode states ➢ artificial intelligence: # of words, word meaning, package size, store location, more data on potato chip sales ○ chips have higher data requirements, so must be better **Persuasive scientific Argument examples** • Potato chips smell better than hotdogs. • Potato chip colors are not bloody, and since vegans don’t eat dogs and the world is going vegan, chips are our future. • No one refuses the salty goodness of flavorful potato chips. • Everybody loves a good ole dog. Who doesn’t like a wiener? • low literacy rates in people in more junk food (health inequity) • (none) obesity kills.

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Final Essay – Apply persuasive scientific evidence (2.of.3)

Iterative submissions

a) 14.FE.D1: complete a draft as soon as feasible; email/teams when in.
b) The instructor provides feedback on what is missing, needs improvement.
c) 14.FE.D2: perform edits and resubmit as soon as feasible; email/teams.
d) The instructor provides feedback on arguments, logic, and evidence.
e) 15.FE.submit: perform final edits and submit.

14.FE.draft.1	4/14	review.1	Final essay Draft.1, due 14th; returned with edit comments
14.FE.draft.2	4/19	review.2	Final essay Draft.2, due 19th; returned with edit comments
15.FE.submit	4/22	final submit	Submit final essay. YOU MUST email, teams if running late

Scientific articles

- Class github has articles below. Research more as needed.
- Copy article title into google and use cite feature to generate reference.
- Cite at bottom of page and refer in paper using [1] or (author) method.

1. wk.13.article.MAIN.potatoC.Language.pdf
2. wk.13.article.hotD.healthy.w.emusion.gels.pdf
3. wk.13.article.hotD.low.literacy.eat.more.hotdogs.pdf
4. wk.13.article.hotD.shelf.life.pdf
5. wk.13.article.hotD.smell.pdf
6. wk.13.article.ontology.color.pdf
7. wk.13.article.ontology.deliciousness.pdf
8. wk.13.article.Ontology.fast.food.emotions.pdf
9. wk.13.article.Ontology.Packaging.Glossy.to.Greasy.Perception.sells.pdf
10. wk.13.article.ontology.sandwich.pdf
11. wk.13.article.ontology.smell.pdf
12. wk.13.article.potatoC.Emotional.Language.(NEAT).pdf
13. wk.13.article.potatoC.obescity.limit.sale.pdf
14. wk.13.article.potatoC.Theory.start Page.108.pdf

Example APA Reference:
Jackson SM, Martin GK, Roberts WA. The olfactory capability of dogs to discriminate between different quantities of food. Learn Behav. 2021 Sep;49(3):321-329. doi: 10.3758/s13420-021-00463-8. Epub 2021 Feb 23. PMID: 33620699.

Grading rubric for persuasive argument

1. strong vs weak thesis
2. strong vs weak follow-through
3. strong vs weak writing
4. good vs bad logic
5. good vs bad evidence
6. clear vs unclear
7. wordy or redundant

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Techniques for persuasive scientific evidence technique writing

1. Lookup 2-3 suitable scientific articles
    1.1. read abstract, introduction, discussion
    1.2. write down key words
    1.3. grok unknown and confusing words
2. Use ontological categories to focus your content generation
    2.1. **write** kernel sentences
    2.2. simple, declarative, and active (Chomsky).
        - AI is not dangerous to your health
        - evidence indicates hotdogs cause cancer
3. **JAM substrate** for 20 minutes
    3.1. timer for 20 minutes; no electronics
    3.2. focus and rapidly write
        - put all read key words into a category
        - doing well? perform 10 more minutes then stop
4. Use “big words.” persuasive problem-solving requires technical terms
    4.1. Emphasize findings by combining them with a powerful action phrase.
        - AI is not dangerous to your health

Scientific template writing categories

1. **Introduction:**
    - State argument, provide context/background on topic, including current debates/research, issue significance.
2. **Scientific Evidence:**
    - Clearly present evidence supporting argument, summarizing relevant research with data/statistics/examples. Ensure credible, reliable, up-to-date evidence with correct sources cited.
3. **Analysis:**
    - Critically evaluate scientific evidence with arguments, discussing strengths/weaknesses, limitations/gaps, and addressing counterarguments/alternative perspectives.
4. **Implications:**
    - Discuss consequences of argument and scientific evidence for topic, including broader significance, potential impact on policy/practice/society, and practical/theoretical implications.
5. **Conclusion:**
    - Summarize argument and supporting scientific evidence, restate topic's importance and implications, and provide call to action/suggestion for future research or action.
6. **References:**
    - List scientific studies and sources cited in argument, using appropriate citation style

Weeks	Lecture: Using scientific research and evidence
12 **Mar 26** **To** **Mar 31**	Scientific research provides a systematic and rigorous way of gathering and analyzing information about the world around us. Researchers use scientific methods to evaluate hypotheses and theories, generate new knowledge, and provide evidence to support or refute claims. Evidence-based practice (EBP) uses scientific evidence to inform occupational practices, re-engineering, and quality improvement. It's controversial, as scientific evidence can require scientific training and other forms of specialization. Outcomes, albeit similar, may need to represent the current environment in question adequately. 1. Scientific research can inform decision-making by assessing the use of interventions, treatments, and policies shown to be effective through rigorous testing. Evidence-based practice involves the best available evidence to guide decision-making rather than relying solely on personal experience, intuition, or tradition. 2. The higher-level principle is to countermand a culture of "Beaver knows best," a.k.a. we can fix it or figure it out ourselves. 3. The movement towards EBP is to encourage or even require professionals and other decision-makers to pay more attention to evidence to inform their decision-making. The goal is to eliminate unsound and outdated practices in favor of more-effective ones by shifting the basis for decision-making from tradition, intuition, and unsystematic experience to firmly grounded scientific research.[2] 4. To use scientific research for evidence-based practice, selecting relevant, valid, and reliable studies is essential to critically evaluate the methods and results of studies to determine their quality and relevance to the question at hand. Researchers may also conduct meta-analyses or systematic reviews, which involve pooling data from multiple studies to provide a more comprehensive view of the evidence. 5. Using evidence-based research improves the quality of arguments and persuasive communication by providing new facts and information grounded in rigorous scientific methods. Ensure decision-making based on the best available evidence. **References:** 1. EBP, retrieved from https://en.wikipedia.org/wiki/Evidence-based_practice 2. Leach, M. J. (2006). "Evidence-based practice: A framework for clinical practice and research design". International Journal of Nursing Practice. 12 (5): 248–251. doi:10.1111/j.1440-172X.2006.00587.x. ISSN 1440-172X. PMID 16942511. S2CID 37311515.