Wk	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 test 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 The goal is to eliminate unsound and outdated practices in favor of more-effective ones by shifting the basis for decision-making from tradition, intuition, and unsystematic experience to firmly grounded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, retreived 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.

Wk	Template: Using scientific research as evidence
12 **Mar 26** **To** **Mar 31**	**Templated writing techniques** help you quickly focus on your content. JAM for each category to generate your substrate. Then weave and clean a final product. Set a timer for 20 minutes to complete all template categories. • No template? Research, phone a friend, email a professor. **Use kernel sentences:** simple, declarative, active sentences (N.Chomsky) Use of clear and concise language that is free of jargon and technical terms focuses the reader. Use the template category to guide construction. Some persuasive problem-solving requires technical terms but emphasizes the verb action phrase. a) According to Hogan et al., using AI is not dangerous to your health b) **1. Template: Using scientific research as evidence** Remember to be specific and provide concrete examples to support your recommendation. It is also essential to be honest, and only recommend someone if you genuinely believe they are qualified and deserving of the opportunity. 1. Introduction: Begin with a clear and concise statement of your argument and provide background information and context for the topic. Include a brief overview of the current debates, research, issue significance, and the significance of the issue. 2. Scientific Evidence: Present the scientific evidence that supports your argument clearly and logically. Summarize relevant research studies, citing data and statistics or providing examples that illustrate your point. Ensure your evidence is credible, reliable, and up-to-date, and cite your sources correctly. 3. Analysis: Analyze the scientific evidence with your argument and provide a critical evaluation of the research. Discuss the evidence's strengths and weaknesses, identify any limitations or gaps in the research, and address any counterarguments or alternative perspectives. 4. Implications: Discuss the consequences of your argument and the scientific evidence for the topic at hand and provide insights into its broader significance. Include discussing the potential impact of your argument on policy, practice, or society more broadly and highlighting any practical or theoretical implications. 5. Conclusion: Summarize your argument and the scientific evidence that supports it and provide a clear and compelling conclusion. Restate the importance of the topic and the implications of your argument and give a call to action or suggestion for future research or action. 6. References: Provide a list of references for the scientific studies and sources cited in your argument, using the appropriate citation style for your discipline. **References:** 1. use library citation methods here for APA or chicago style

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