Final Project

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1 Authors who submit a manuscript for publication containing data, reviews, conclusions, etc., that have already been disseminated in some significant manner (e.g., published as an article in another journal, presented at a conference, posted on the internet) must clearly indicate to the editors and readers the nature of the previous dissemination.

1) **Clear Disclosure of Previous Dissemination**

Authors must inform editors and readers if the data, reviews, or conclusions presented in a manuscript have already been disseminated in any significant way, such as through publication in another journal, presentation at a conference, or online posting. This transparency is critical to avoid misleading readers about the novelty of the work and ensures that proper credit is given where it is due. Failing to disclose this information can be considered redundant publication, which is an ethical violation.

2) **Avoiding Academic Self-plagiarism (Double-dipping)**

Double-dipping refers to the unethical practice of submitting the same paper or significant portions of a paper to fulfill requirements for different courses without the consent of the instructors involved. While this may be tempting for students to save time, it is a form of academic dishonesty. It is only acceptable if both instructors are informed about the double submission and explicitly agree to it. Some institutions may even have policies prohibiting this practice altogether, considering it a form of plagiarism.

3) **Salami Slicing (Data Fragmentation)**

Salami slicing is the practice of dividing a large study into multiple smaller publications, each presenting a different aspect of the study. While not exactly the same as redundant publication, it can still mislead readers into thinking the data are derived from separate, independent studies. This practice distorts the scientific literature by artificially inflating the number of publications and could mislead readers or reviewers about the scope and

reliability of the findings. For instance, publishing results of a study on mothers in one journal and the results for infants in another, despite being part of the same research, creates a fragmented and incomplete picture of the research.

4) **Data Augmentation**

Data augmentation involves adding new data to an existing study, typically to strengthen the original findings, and publishing the combined results as if they came from an independent study. This practice is deceptive because it misrepresents the scope and independence of the data. It can also lead to misleading conclusions, especially in systematic reviews or meta-analyses, where such fragmented or augmented data may be treated as independent studies, distorting the integrity of the research. For example, publishing two separate studies from the same sample, when combined, could result in a misinterpretation of the study's findings.

5) **Integrity in Meta-Analysis**

When conducting meta-analyses or literature reviews, it is essential to ensure that all data included are from independent samples. If fragmented data from the same sample (e.g., multiple publications from the same dataset) are mistakenly treated as separate studies, this can lead to biased conclusions. This can have serious consequences, particularly in fields like biomedical research, where policy decisions based on faulty data can directly affect public health. Therefore, researchers must be meticulous in their approach to including data in such analyses to preserve the accuracy and integrity of the scientific database.

2 In order to make substantial modifications to the original text that result in a proper paraphrase, the author must have a thorough understanding of the ideas and terminology being used

1) **Example and Challenges of Paraphrasing Technical Content**

Consider the example from Lunyak et al. (2002) discussing a specific biochemical process:

> "*Mammalian histone lysine methyltransferase, suppressor of variegation 39H1 (SUV39H1), initiates silencing with selective methylation on Lys9 of histone H3, thus creating a high-affinity binding site for HP1. When an antibody to endogenous SUV39H1 was used for immunoprecipitation, MeCP2 was effectively coimmunoprecipitated; conversely, αHA antibodies to HA-tagged MeCP2 could immunoprecipitate SUV39H1.*"

An attempted paraphrase might reword this text by reordering some terms or using synonymous phrases; however, in highly technical contexts, key terms like *affinity*, *binding*

site, or *methylation* may have no true synonyms that retain the original meaning. For instance, "affinity" specifically refers to the strength of the molecular interaction and cannot be replaced by simpler terms like "attraction" without losing scientific accuracy. Similarly, terms such as "methylation" and "antibodies" are precise and lack direct substitutes. Because of this, an attempted paraphrase may end up looking similar to the original text, potentially creating a borderline case of plagiarism despite efforts to rephrase.

2) **Guidelines for Ethical Paraphrasing**

To address these difficulties, the Office of Research Integrity (ORI) provides guidance. ORI states that the limited use of identical or nearly identical phrases for describing standard methodologies or well-known research practices may not be considered plagiarism, as long as this use does not mislead the reader. This allowance recognizes that certain technical terms and descriptions are standard in scientific language and often cannot be meaningfully altered.

In light of these considerations, here are some recommended guidelines for paraphrasing technical materials to maintain ethical writing standards:

1. **Use Quotation Marks for Unchangeable Text**: If a highly technical phrase cannot be effectively paraphrased without changing its meaning, it may be best to retain the original wording within quotation marks and provide a proper citation.
2. **Avoid Excessive Similarity**: While some terms must remain unchanged, strive to vary sentence structure and any modifiable wording to differentiate your paraphrase from the source text.
3. **Clearly Cite the Source**: Whenever you retain technical terms or closely paraphrased content, ensure that you clearly attribute the original source, demonstrating transparency in your reliance on foundational ideas.
4. **Consider the Context**: In cases where paraphrasing risks altering the intended meaning of technical terms, consider if quoting is appropriate or if the material should be presented with explicit attribution and explanation.
5. **Respect Field Conventions**: Recognize that each field has its norms for quoting and paraphrasing; in highly technical scientific fields, maintaining accuracy often takes precedence over strict paraphrasing.

3 We must always acknowledge every source that we use in our writing; whether we paraphrase it, summarize it, or enclose it quotations

1) **Understanding Inappropriate Paraphrasing and Effective Summarization**

1. **Inappropriate Paraphrasing**:

Inappropriate paraphrasing occurs when someone reuses portions of text from a source, gives credit to the original author, but only changes a few words or rearranges sentence structures, such as shifting from active to passive voice or altering verb tense. This practice often retains much of the source' s original structure and vocabulary, which makes it resemble the source too closely. As a result, this form of paraphrasing is commonly considered a type of plagiarism.

One of the main reasons why inappropriate paraphrasing is problematic is because it can mislead readers into thinking the ideas or phrasing are original, despite being very similar to the original source. Determining what constitutes proper paraphrasing can vary across fields and is often debated, even among experts within the same discipline. Effective paraphrasing should involve rephrasing ideas in a new, distinct way while maintaining the original meaning and providing proper credit to the source.

2. **Paraphrasing vs. Summarizing**:

   In scholarly writing, it is common to paraphrase and summarize the work of others. Paraphrasing involves rewording specific points or passages from a source to fit within one' s own writing style and context. Summarizing, however, means condensing a large amount of information into a brief overview that highlights the main points.

   For instance, in scientific papers, the introduction often contains a summary of relevant literature, synthesizing theoretical and empirical studies into a coherent narrative that prepares readers for the new research being presented. Both paraphrasing and summarizing are essential skills that help writers integrate existing research without over-relying on the source's language or structure.

2) **Strategies to Avoid Plagiarism**

To maintain academic integrity, it is important to practice proper paraphrasing and summarization techniques:

1. **Substantial Rephrasing**:

   Simply changing a few words or using synonyms is not enough to avoid plagiarism. This is often referred to as "patchwriting," where the text still closely mirrors the original. Instead, substantial rephrasing involves reworking the entire idea or passage in your own words and style. It' s important to internalize the original material and then express it in a way that reflects your understanding. This ensures that the paraphrased text is sufficiently different from the original while preserving the core meaning.

   For example, if the original text reads: "The climate crisis is a result of human activities, especially the burning of fossil fuels."

   A substantial paraphrase would be: "Human actions, particularly the use of fossil fuels, have contributed significantly to the global climate crisis."

   Notice how the phrasing, sentence structure, and word choice are different, but the meaning remains intact. This kind of paraphrasing shows that you grasp the concept and can present it in a new way.

2. **Use Distinct Sentence Structures**:

   To further differentiate your paraphrase from the original, focus on altering the sentence structure in addition to changing words. This might involve switching between active and passive voice, rearranging the order of ideas, combining short sentences into a more complex structure, or breaking down long sentences into simpler ones. By doing so, you can avoid inadvertently copying the organization of the original text and make your paraphrased work more original.

   For example: Original: "The study found that regular exercise improves mental health by reducing stress and anxiety." Paraphrase: "Mental health benefits significantly from regular exercise, as it helps alleviate stress and anxiety."

   In this example, the core idea remains the same, but the sentence structure has been changed, creating a more original version of the content.

3. **Attribute All Sources**:

   Even when paraphrasing, it's critical to give credit to the original source of the idea. Failure to cite the source, even if the language is reworded, can still be considered plagiarism. Proper attribution demonstrates academic honesty and helps readers trace the origins of the ideas you are discussing. Whether you are paraphrasing, summarizing, or quoting directly, always provide a citation to acknowledge the intellectual contributions of others.

   For example, after paraphrasing a concept from a research article, you would include an appropriate citation like: "According to Smith (2020), regular exercise is key to managing mental health issues such as stress and anxiety."

   Even if the ideas are paraphrased, the source of the information must be acknowledged to maintain transparency and avoid misleading readers about the origin of the idea.

4. **Practice Summarizing**:

   Summarizing is a useful skill for condensing lengthy content into a brief, clear, and accurate summary. When summarizing, you extract the essential points or ideas from a source while leaving out non-critical details. This is especially important when the original text is long or contains excessive detail. Summarizing helps you avoid mirroring the structure and language of the original work too closely, reducing the risk of plagiarism.

   For example, if you are summarizing a section of a research paper on climate change, you might write: "The study emphasizes the role of human activities in accelerating climate change, specifically the impact of fossil fuel consumption on global warming."

   Notice that the summary captures the main idea but omits specific data or secondary details that are not necessary for the main point. A good summary is concise and focused on the key takeaways, allowing you to express the essence of the original material in your own words.

4 While there are some situations where text recycling is an acceptable practice, it may not be so in other situations.Authors are urged to adhere to the spirit of ethical writing and avoid reusing their own previously published text, unless it is done in a manner consistent with standard scholarly conventions (e.g., by using of quotations and proper paraphrasing)

1) **Ethical Writing and Lesser Crimes in Research**

In academic writing, it is important to follow ethical practices when using text, particularly when considering the reuse of previously published material. While there are certain instances where text recycling (reusing parts of previously published work) is acceptable, it is not universally appropriate. Authors are encouraged to adhere to ethical writing standards and avoid reusing their own previously published text unless it is done in accordance with scholarly conventions, such as proper paraphrasing or quoting. This ensures that the integrity of the work is maintained and that original contributions are clearly distinguished.

2) **The Lesser Crimes of Writing: Other Questionable Writing Practices**

Zigmond and Fischer (2002) categorize unethical practices in scientific research into "high crimes" and "misdemeanors." High crimes refer to serious violations, such as fabrication, falsification, and plagiarism, which are widely recognized as the most severe offenses in research. However, Zigmond and Fischer argue that many other inappropriate behaviors, though less serious, still compromise the ethical conduct of research and writing. These "misdemeanors" should receive more attention, as they contribute to a broader culture of academic misconduct. Some common examples of these lesser crimes include:

- **Neglecting to Indicate the Source of Funding:** Failing to disclose where financial support for the research comes from, which can create conflicts of interest or affect the interpretation of the research.
- **Failing to Identify Conflicts of Interest:** When researchers do not disclose potential biases or personal interests that may influence the outcome or presentation of their work.
- **Establishing Honorary Authorship:** Giving someone authorship credit when their contribution to the research does not meet the criteria for authorship. This practice dilutes the responsibility and credibility of the research.

3) **Citations and References**

Accurate citations and proper referencing are fundamental in scholarly writing. Citations indicate the source of ideas, data, or theories presented in the text, while the

reference list provides detailed information about the sources so readers can verify or explore them further. Different writing styles (e.g., APA, AMA) have specific formats for citing sources, but they all serve the same purpose: to give credit to the original authors and allow readers to trace the information.

3) **Carelessness in Citing Sources**

While citations are crucial for scholarly integrity, authors sometimes make careless errors in citing their sources, especially in the reference list. This can include incorrect details such as misspelled author names, incorrect journal titles, or wrong publication dates. Such mistakes undermine the reliability of the work and can hinder readers from accessing the original sources. Even prestigious biomedical journals have been found to contain citation errors, highlighting that this is a widespread issue in academic writing.

4) **The Importance of Citing the Original Observation**

Another common issue in academic writing is the failure to cite the original source of an observation or phenomenon. In many cases, authors cite later studies that support the initial discovery, but they fail to give credit to the researcher who first reported the phenomenon. Zigmond and Fischer (2002) note that this practice denies the original researcher the recognition they deserve for their pioneering work. Properly citing the first report of a discovery not only acknowledges the original contribution but also maintains the integrity of the academic record.