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An abstract is a short summary of your (published or unpublished) research paper, usually about a paragraph (c. 6-7 sentences, 150-250 words) long. A well-written abstract serves multiple purposes:

- an abstract lets readers get the gist or essence of your paper or article quickly, in order to decide whether to read the full paper;
- an abstract prepares readers to follow the detailed information, analyses, and arguments in your full paper;
- and, later, an abstract helps readers remember key points from your paper.

The abstract is a critical part of a scientific paper; in fact, it may be the only part people read.

- **State your problem**. The beginning of the abstract should contain a statement about the research problem or question, along with enough background or context for readers to understand why the problem is important. Your findings should then be presented as an answer to the question.
- **Have a main point**. Although the style of writing is different, the abstract is like a brief news item on your research, and news stories always have a main point.
- **Target a broad audience**. The abstract should be aimed at a wider audience than the paper itself, because you never know who will come across it online and in database searches.
- Say what you found, not what you did. Statements about methods (we did this) can almost always be rephrased as statements about findings (we found this). It's always more interesting to hear about results than methods, plus you'll save on words.

Steps for Writing an Abstract

- **Be explicit about the significance of the research**. A good abstract includes a statement at the end about the significance of the work, the more specific the better.
- Eliminate writing errors. When people are skimming text very quickly—as they are with abstracts—they are less patient with writing errors and clunky, hard-to-read prose. So, make every effort to use good grammar, proper sentence structure, transitions between sentences, and so on. Reading your abstract should be as effortless as strolling a gently winding path. Making readers hack through thickets of words will discourage them from taking the longer journey—reading your paper.
- **Choose keywords carefully**. Learning how to choose good keywords (ones that increase your paper's chance of being found in searches) is beyond the scope of this workshop. But make sure you discuss this with your advisor, your college librarian, or others who can offer guidance.
- **In summary**. To write an informative and interesting abstract: 1) State the problem; 2) Present only your key findings (i.e., the main points), making explicit how they address the problem; 3) State the overall significance of the research; 4) Provide background as needed; and 5) Make your writing as clear and accessible as possible.

• The social sciences (1)

"The growing economic resemblance of spouses has contributed to rising inequality by increasing the number of couples in which there are two high- or two low-earning partners. The dominant explanation for this trend is increased assortative mating. Previous research has primarily relied on cross-sectional data and thus has been unable to disentangle changes in assortative mating from changes in the division of spouses' paid labor-a potentially key mechanism given the dramatic rise in wives' labor supply. We use data from the Panel Study of Income Dynamics (PSID) to decompose the increase in the correlation between spouses' earnings and its contribution to inequality between 1970 and 2013 into parts due to (a) changes in assortative mating, and (b) changes in the division of paid labor. Contrary to what has often been assumed, the rise of economic homogamy and its contribution to inequality is largely attributable to changes in the division of paid labor rather than changes in sorting on earnings or earnings potential. Our findings indicate that the rise of economic homogamy cannot be explained by hypotheses centered on meeting and matching opportunities, and they show where in this process inequality is generated and where it is not." (p. 985)

The first sentence introduces the **topic** under study (the "economic resemblance of spouses"). This sentence also implies the **question** underlying this research study: what are the various causes and the interrelationships among them—for this trend?

> These next two sentences explain what **previous research** has demonstrated. By pointing out the limitations in the methods that were used in previous studies, they also provide a **rationale** for new research.

The data, research and analytical **methods** used in this new study.

The major findings from and implications and significance of this study.

• The social sciences

The <u>social science</u> sample (Sample 1) below uses the present tense to describe general facts and interpretations that have been and are currently true, including the prevailing explanation for the social phenomenon under study. That abstract also uses the present tense to describe the methods, the findings, the arguments, and the implications of the findings from their new research study. The authors use the past tense to describe previous research.

• The humanities (2)

"From the mid-1970s through the mid-1980s, a network of young urban migrant men created an underground pulp fiction publishing industry in the city of Dar es Salaam. As texts that were produced in the underground economy of a city whose trajectory was increasingly charted outside of formalized planning and investment, these novellas reveal more than their narrative content alone. These texts were active components in the urban social worlds of the young men who produced them. They reveal a mode of urbanism otherwise obscured by narratives of decolonization, in which urban belonging was constituted less by national citizenship than by the construction of social networks, economic connections, and the crafting of reputations. This article argues that pulp fiction novellas of socialist era Dar es Salaam are artifacts of emergent forms of male sociability and mobility. In printing fictional stories about urban life on pilfered paper and ink, and distributing their texts through informal channels, these writers not only described urban communities, reputations, and networks, but also actually created them." (p. 210)

The first sentence introduces the **context** for this research and announces the **topic** under study.

The remaining sentences in this abstract interweave other essential information for an abstract for this article. The implied research questions: What do these texts mean? What is their historical and cultural significance, produced at this time, in this location, by these authors? The argument and the significance of this analysis in microcosm: these texts "reveal a mode or urbanism otherwise obscured . . . ": and "This article argues that pulp fiction novellas. . . ." This section also implies what previous historical research has obscured. And through the details in its argumentative claims, this section of the abstract implies the kinds of methods the author has used to interpret the novellas and the concepts under study (e.g., male sociability and mobility, urban communities, reputations, network...).

The humanities (2)

The humanities sample (Sample 2) below uses the past tense to describe completed events in the past (the texts created in the pulp fiction industry in the 1970s and 80s) and uses the present tense to describe what is happening in those texts, to explain the significance or meaning of those texts, and to describe the arguments presented in the article.

• The science (3)

"Several studies have reported reprogramming of fibroblasts into induced cardiomyocytes; however, reprogramming into proliferative induced cardiac progenitor cells (iCPCs) remains to be accomplished. Here we report that a combination of 11 or 5 cardiac factors along with canonical Wnt and JAK/STAT signaling reprogrammed adult mouse cardiac, lung, and tail tip fibroblasts into iCPCs. The iCPCs were cardiac mesodermrestricted progenitors that could be expanded extensively while maintaining multipo-tency to differentiate into cardiomyocytes, smooth muscle cells, and endothelial cells in vitro. Moreover, iCPCs injected into the cardiac crescent of mouse embryos differentiated into cardiomyocytes. iCPCs transplanted into the post-myocardial infarction mouse heart improved survival and differentiated into cardiomyocytes, smooth muscle cells, and endothelial cells. Lineage reprogramming of adult somatic cells into iCPCs provides a scalable cell source for drug discovery, disease modeling, and cardiac regenerative therapy." (p. 354)

The first sentence announces the **topic** under study, summarizes what's **already known** or been accomplished in **previous research**, and signals the **rationale and goals are for the new research and the problem** that the new research solves: How can researchers reprogram fibroblasts into iCPCs?

The **methods** the researchers developed to achieve their goal and a description of the **results**.

The **significance** or **implications**—for drug discovery, disease modeling, and therapy—of this reprogramming of adult somatic cells into iCPCs.

• The science (3)

The science samples (Samples 3 and 4) below use the past tense to describe what previous research studies have done and the research the authors have conducted, the methods they have followed, and what they have found. In their rationale or justification for their research (what remains to be done), they use the present tense. They also use the present tense to introduce their study (in Sample 3, "Here we report . . .") and to explain the significance of their study (In Sample 3, This reprogramming . . . "provides a scalable cell source for. . .").

To begin, you need to determine which type of abstract you should include with your paper. There are four general types:

1. Critical Abstract

A critical abstract provides, in addition to describing main findings and information, a judgment or comment about the study's validity, reliability, or completeness. The researcher evaluates the paper and often compares it with other works on the same subject. Critical abstracts are generally 400-500 words in length due to the additional interpretive commentary. These types of abstracts are used infrequently.

2. Descriptive Abstract

A descriptive abstract indicates the type of information found in the work. It makes no judgments about the work, nor does it provide results or conclusions of the research. It does incorporate key words found in the text and may include the purpose, methods, and scope of the research. Essentially, the descriptive abstract only describes the work being summarized. Some researchers consider it an outline of the work, rather than a summary. Descriptive abstracts are usually very short, 100 words or less.

3. Informative Abstract

The majority of abstracts are informative. While they still do not critique or evaluate a work, they do more than describe it. A good informative abstract acts as a surrogate for the work itself. That is, the researcher presents and explains all the main arguments and the important results and evidence in the paper. An informative abstract includes the information that can be found in a descriptive abstract [purpose, methods, scope] but it also includes the results and conclusions of the research and the recommendations of the author. The length varies according to discipline, but an informative abstract is usually no more than 300 words in length.

4. Highlight Abstract

A highlight abstract is specifically written to attract the reader's attention to the study. No pretense is made of there being either a balanced or complete picture of the paper and, in fact, incomplete and leading remarks may be used to spark the reader's interest. In that a highlight abstract cannot stand independent of its associated article, it is not a true abstract and, therefore, rarely used in academic writing.

Assignment

Create mind mapping

Describe your study plan in the Animal Science department as completely as you can

Deadline 25th may, 2021, 11.00 PM

References

https://www.youtube.com/watch?v=JMEnRBss6V4 https://www.youtube.com/watch?v=WRYchBAdllk https://www.youtube.com/watch?v=o1WhjPh3ZQ4 https://www.youtube.com/watch?v=ViGyw4TAjMc



Thank you for your attention