Getting Started Thinking about Abstracts

Take five minutes to write your response to the following questions:

- When have you encountered an abstract before?

- What challenges do you have when reading abstracts or writing your own?

Submit your answer at menti.com & type in 7124 4624

Writing Abstracts for Research Projects

Organized by Undergraduate Research at City Tech
Summer 2023

Michael Greer & Weiheng Sun

Writing Across the Curriculum (WAC) Fellows at City Tech

Overview

- What is an abstract?

- Where do we see abstracts?

- How are abstracts used?

- Benefits of writing an abstract

- Elements of an abstract

- Abstract practice exercises

What you'll need for this workshop:

- A way to take notes:
  - Paper + pen OR a digital doc
- The abstract you brought to this workshop

Quiz (3-5 minutes)

Read the abstract and decide whether it is a good abstract or not.

Click the link and submit your answer:

https://forms.gle/KHM1XQL9BqQQfB1B6

What Is an Abstract?

A roadmap of the main ideas in a paper, talk, or project. Depending on the context, abstracts tend to be 1-3 paragraphs, or 150 – 300 words. Abstracts should be:

- *Concise*: Include <u>only</u> information that summarizes your project.

- *Discipline-specific*: Use the <u>writing conventions</u> relevant to your discipline and the journal, conference, etc. where you are presenting your work.

- *Audience-specific*: Have a clear idea of <u>who</u> will be reading your abstract (i.e., your peers, your professors, scholars inside or outside your field).

- *Searchable*: Use <u>key words</u> that express the big picture of your paper and make it easier to search for in databases or collections

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In Search Engine Results

At the Beginning of a Primary Literature Article

Paul's Boutique and Fear of a Black Planet: Digital Sampling and Musical Style in Hip Hop

AMANDA SEWELL

Abstract

The Beastie Boys' Paul's Boutique (1989) and Public Enemy's Fear of a Black Planet (1990) often draw comparisons because of their profuse and eclectic use of digital sampling. These two hip hop albums, however, use sampling in markedly different ways, a fact that is obscured because no well-developed language exists to differentiate how and why their sampling styles differ. To account for these differences, this article proposes a typology for sample-based hip hop, a systematic terminological and conceptual approach to this repertory. Using these two classic albums by the Beastie Boys and Public Enemy as case studies, this typology offers a way to describe and distinguish in concrete terms the richly varied musical styles that make up sample-based hip hop.

Introduction

In a 2011 study on copyright law and digital sampling, Kembrew McLeod and Peter DiCola calculated how much it would cost to release the Beastie Boys' *Paul's Boutique* (1989) and Public Enemy's *Fear of a Black Planet* (1990) had all the dozens of samples been licensed.[1] They estimated that *Fear of a Black Planet* would cost over six million dollars and *Paul's Boutique* nearly twenty million dollars.[2] It is not surprising that McLeod and DiCola chose to compare these two albums. Released within a year of each other, they each contain over one hundred identified samples and are both are critically recognized as masterpieces.[3] Neither album was a debut effort; rather, both groups had solidified elements of their musical styles and approaches to sampling in previous releases.[4]

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At the Beginning of a Grant Application

The role of avian visual perception in parasitic egg rejection: mechanisms, behavior, and sensory coevolution

Zachary Aidala, PhD Candidate, The Graduate Center, CUNY
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Abstract

Obligate brood parasite-host systems are exemplary models for studying the (co)evolution of sensory/perceptual mechanisms of own vs. foreign egg discrimination. Yet, whether and how coevolution has shaped the sensory bases of antiparasite behaviors remains largely unknown. I will sample host species of the parasitic brown-headed cowbird (*M. ater*) to determine the extent to which parasitism by cowbirds has generated convergent genetic, sensory, and behavioral patterns to accept or reject cowbird eggs in response to the reproductive costs of parasitism. *I predict that hosts with more sensitive visual systems, as defined by smaller predicted discrimination thresholds between own and foreign egg colors and broader spectral sensitivity within the visual environment of their nests, will be more likely to show cowbird-egg rejection behaviors.* My proposal offers an innovative approach for integrating comparative methods, genetic and physiological mechanisms, and behavioral outcomes to investigate the role of sensory dimensions of coevolutionary interactions in generating phenotypic diversity.

Introduction

Arms races between hosts and their parasites represent a major evolutionary driving force that generates fundamental genetic and phenotypic diversity in nature[1]. To understand the patterns and processes of such arms races, it is critical to identify genetic, sensory, neural, and cognitive controls underlying seemingly similar morphological traits and behavioral displays[2]. Obligate brood parasitic birds have become potent subjects for evolutionary studies of sensory, perceptual, and cognitive mechanisms to recognize and reject parasitism[3]. Brood parasites benefit from transferring the burden of parental care for their young to unrelated hosts. In turn, because raising offspring is costly, hosts of brood parasitic birds should in theory accurately perceive, recognize, discriminate, and reject foreign eggs and chicks. Indeed, comparative and experimental studies in several avian host-parasite systems, including cowbirds (*Molothrus* spp.), have demonstrated the repeated evolution of egg rejection behaviors in response to the relative fitness costs of parasitism and the reproductive benefits of accurate egg discrimination[4]. Paradoxically, and for reasons that are insufficiently understood, many frequently parasitized cowbird hosts do not reject foreign eggs (despite a lack of human-assessed parasite-host egg mimicry) and pay severe fitness costs for accepting and raising parasites. Such lack of egg rejection behavior may reflect inabilities to detect and/or remove eggs due to sensory, cognitive, or physical factors[5,6,7]. The mechanisms explaining the lack of foreign egg rejection in many cowbird hosts could be maintained by an evolutionary lag between hosts and parasites where hosts have not yet evolved defenses against brood parasitism[3]. **The proposed study will explore the sensory basis of foreign egg acceptance or rejection, and enhance our understanding of the extent to which coevolution has (or has not) shaped the genetic, sensory, and neural elements underlying antiparasite behaviors, a subject that generally remains poorly understood.**

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How Are Abstracts Used?

LOCATING RESEARCH

- **Indexing:** Allows us to locate relevant research by searching for keywords and terms.

- **Selection:** Helps us decide if an article is relevant to our project.

How Are Abstracts Used?

COMMUNICATING RESEARCH

- **Presentation:** Displays the results and significance of our study.

- **Appeal:** Generates interest in our work

- **Accessibility:** Provides convenient access to our ideas and work in concise language

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Benefits of Writing an Abstract

- **Structure:** Provides a blueprint for our project we can refer to throughout.

- **Self-Reflective Learning:** Helps clarify our ideas by imagining how they would be presented or explained to others.

- **Summary**: Allows us to synthesize our completed project in a structured and concise manner.

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ABSTRACT ELEMENTS

Significance, Question, Methodology
Conclusions, Implications

Significance — In a broader **context**, why is the research **important**? Why does it matter or why should we care?

Question — What is the central question? What do we want to achieve? What is the goal/**objective** or **purpose**?

Methodology — What do we do in this study? **How** did we conduct it?

Conclusions — What did we **find out**? What answers did we arrive at?

Implications — In a broader **context**, how might the research **impact future** studies in our field?

Abstract Template

Significance

v1: Earlier research _____ shows _____, but the question about _____ remains unaddressed.

v2: The research is important because _____ (how it contributes to the field).

Question

The purpose of the research is _____.

Methodology

The research consists of the following steps: _____.

Conclusions

v1: The findings of the research show that _____.

v2: The data we collected demonstrate that _____.

Implications

v1: The findings of the research support/disagree/complement earlier studies _____ (in what ways?).

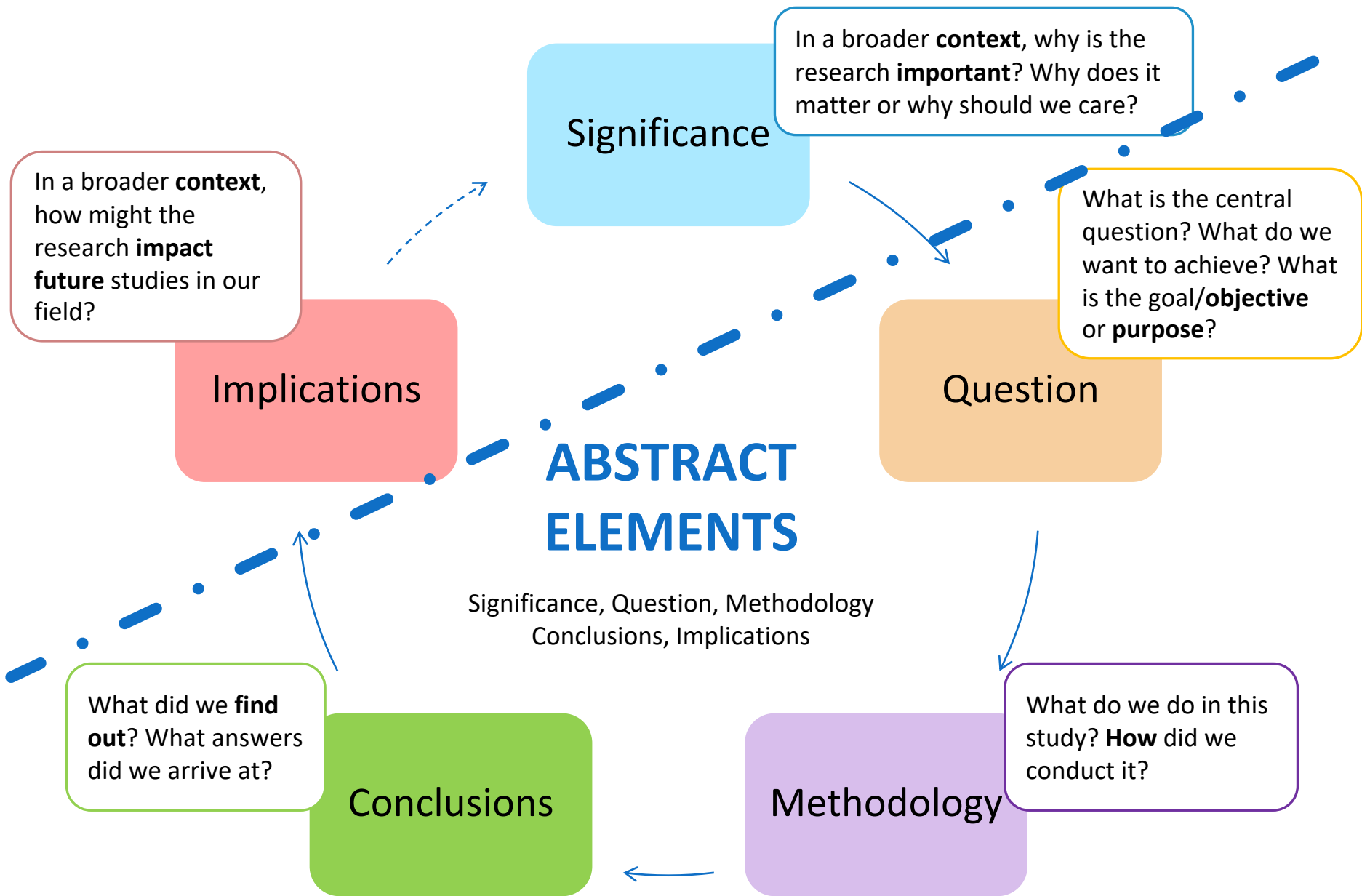v2: Following the research, future studies can focus on _____.
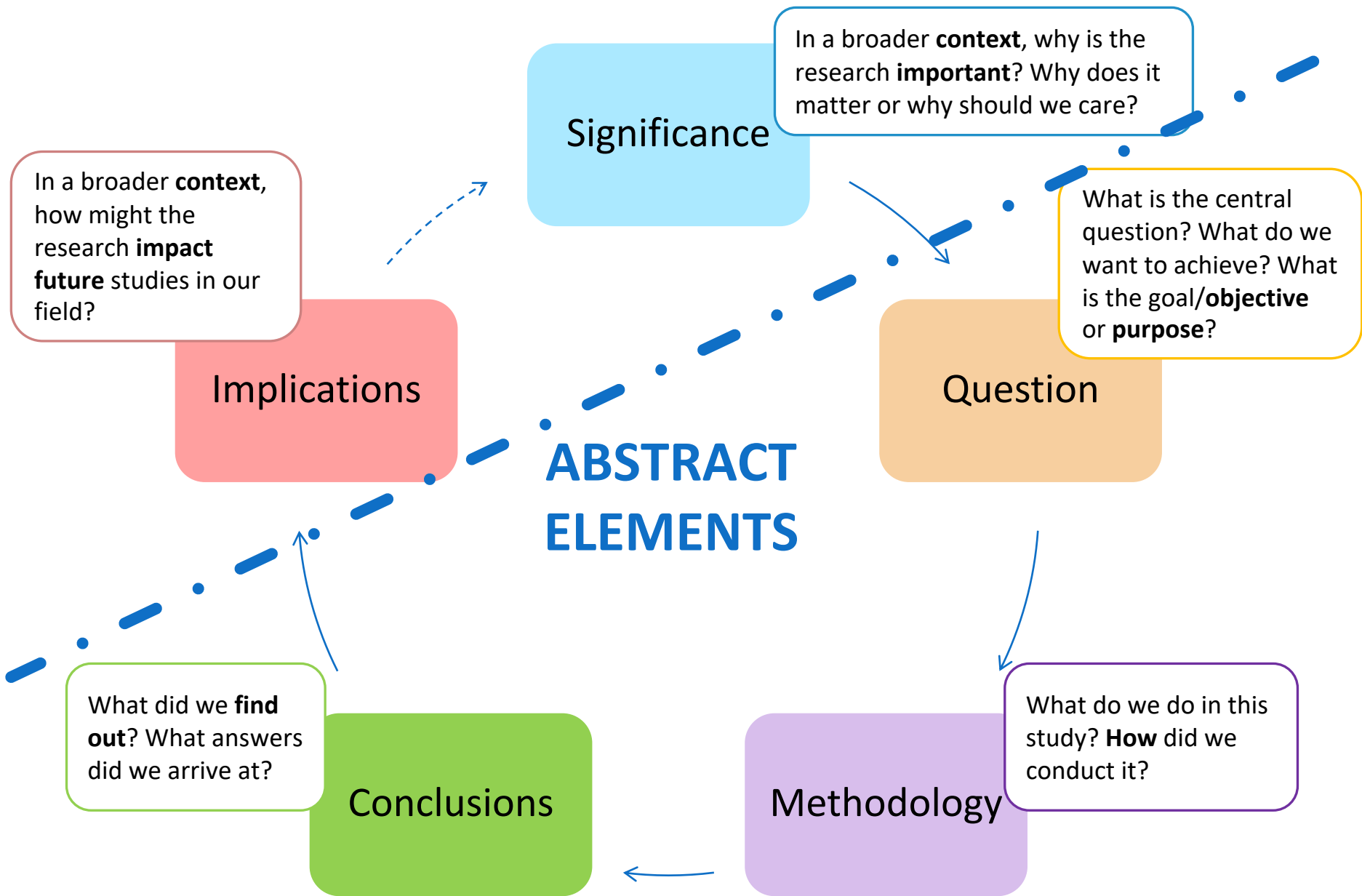
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What Makes an Abstract Successful?

Breakout room assignment:

1. As a group, we will analyze a sample abstract (10 min)

2. Reflect on your abstract (pay attention to both the **content** and **structure**.) (5min)

3. Share your thoughts with your group (10min)

For each abstract, ask yourself:

- Are all the elements present?

- Is it concise?

- Are there redundancies?

➢ **Identify the significance, question, methodology, conclusions, and implications**

Title: Assessing Participants' Feedback to Dental Hygiene Care Provided by City Tech's Dental Hygiene Students

The purpose of this research is to determine if CUNY students, faculty and staff are aware of the Dental Hygiene Program and services located at New York City College of Technology (NYCCT). Dental Hygiene students at NYCCT provide educational, clinical and therapeutic services to the public in accordance with individual state Dental Hygiene practice acts. Prevention and treatment of oral disease are recognized as important factors in a patient's overall health and well-being. Dental hygienists are important members of the dental health care team providing these services.

The first phase of the project consisted of a free dental screening event that was held during a Wellness Fair at the CUNY Graduate Center on May 2nd, 2018. The study received CUNY IRB approval and the individuals that participated in this event were contacted to schedule an appointment in order to receive a prophylaxis (comprehensive Dental Hygiene examination and treatment/care) with a Dental Hygiene student. The second phase of the project involved an electronic survey completed by the dental screening participants as well as a hard copy (paper) survey that was given to individuals who complete dental treatment at NYCCT's Dental Hygiene clinic. **The findings of this research** demonstrated that **those individuals** who received the dental screening are likely to schedule an appointment to receive a prophylaxis. **Additionally, most of the participants** who received oral hygiene services at NYCCT greatly benefited from their treatment, oral health education and care. Even though poor oral hygiene is preventable, **many individuals** from lower-income households and ethnic minorities lack access to dental care services. Although efforts to increase access to services have improved, there is still much to be done at an individual, professional and community level to improve the oral health status of our population. The findings of this study **will** support raising the level of awareness of the services available in our dental clinic in terms of future dental screenings.

> **Identify the significance, question, methodology, conclusions, and implications**

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Question

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Conclusion

Implications

Examine your own abstract

Now we will go through another abstract. Please take out the abstract that you brought for today's workshop. If you didn't bring an abstract, please review *Abstract A* in the Google Doc.

Highlight the significance, question, methodology, conclusions, and implications. If you cannot find an element in the abstract, note that down.

Significance: Why does this matter?

Question: What is the major question or objective driving the study?

Methodology: What do we do in this study? How did we conduct it?

Conclusion: What did we find out? What answers did we arrive at?

Implications: What now?

We will regroup in five minutes to discuss.

> **Identify the significance, question, methodology, conclusions, and implications**

Title: Using the Mediation Methodology to Analyze the Northern Ireland communal conflict

Mediation is part of the conflict resolution family and falls in the Alternate Dispute Resolution category. Mediation is basically when two or more parties voluntarily come together with an impartial third party to resolve a conflict. The purpose of this paper is to explain the six steps to the mediation methodology presented in "Peacemakers Toolkit: Managing a Mediation Process" which is authored by Amy L. Smith and David R. Smock. I will be using the Northern Ireland Communal Conflict as a case study.

The six steps to the mediation process include: a) assessing the conflict, b) ensuring mediator readiness, c) ensuring conflict ripeness d) conducting track I mediation e) conducting track II-dialogue and f) constructing a peace agreement. The Northern Ireland Communal conflict deals with the tension between the Protestants who have held the majority of the population whereas the Catholics who have been the minority in Northern Ireland- a case of ethno-nationalism. The Protestants desired to be part of the UK as they identified themselves as British. On the other hand, the Catholics identified themselves as Irish and desired a separate governing structure from the United Kingdom. John W. Burton (1915- 2010) is considered by many to be one the founders of the conflict resolution scholarship.

Throughout this paper I will be mainly referencing to the works of John W. Burton. He derived the concept of "provention"- which involved eliminating the sources of conflict, removing the causes of conflict and promoting an atmosphere where conflict does not exist. "

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Conclusion

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Identify the significance, question, methodology, conclusions, and implications

Title: Cranberry Juice And Grape Juice As Anti-Viral Agents and Cytotoxicity Studies

Defined phytochemicals in potable juices (grape juice and cranberry juice) have been shown to possess antiviral properties both in vitro and in vivo. However, cytotoxicity by chemical treatment of cells may mask any antiviral effects. Accordingly, testing is critical to validate the effect of the juices in question as antiviral agents.

Antiviral testing in cell culture has addressed the potential issue of cytotoxicity by monolayer pretreatment with cranberry and Concord grape juices. Such [cytotoxicity] testing employed trypan blue exclusion and cell subpassage. However, confirmatory testing to identify subtle effects by juices and other phytochemicals or nutraceuticals needs to be tested by a metabolic assay. This required a non-destructive bioluminescent cytotoxicity assay, which quantitatively measures the release of adenylate kinase (AK) from damaged cells. Release of AK from damaged cells, in complex with ADP, luciferein and luciferase additives from the ToxilightR BioAssay kit, yields an ATP spark – which can be detected by placement of the reaction mix in a luminometer. The luminometer was procured through a GRTI grant, which was used in this collaborative effort.

After the assay was perfected, the data collected from the luminometer showed that 50% Purple, Niagara, and pure cranberry juice reveal no cytotoxicity to monkey kidney cells grown in monolayer culture. This data confirms earlier results in that the antiviral effects were clearly due to the juices, and not artifact associated to host cell cytotoxicity.

Identify the significance, question, methodology, conclusions, and implications

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Significance / Question

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Quiz (5 minutes)

Read and evaluate the abstract.

Click the link and submit your answer:

https://forms.gle/xsHh14ss9uuMEDdh9

Discussion

Title: Translating American Sign Language through Machine Learning

The goal of this project is to translate in real time American Sign Language into written English via machine learning. Without cloud computing and AI technology, image classification would be hard to achieve. Our project is based on Google Cloud Service (GCS) and the Chrome camera that is fully integrated with GSC. All the code for training and running the machine learning model is done with Java. The Chrome camera will take images and videos for the database to train the machine learning model and the code will be implemented via GCS.

Discussion

Title: Translating American Sign Language through Machine Learning

Question

The goal of this project is to translate in real time American Sign Language into written English via machine learning. Without cloud

Methodology

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Significance

Conclusion

Implications **?**

A Successful Abstract…

... is a clear **summary**

... adds **no new information**

... is **discipline-specific**

... is tailored to an **audience**

... uses **keywords** as tags

Thank You!

This PowerPoint follows Creative Commons License: Attribution-NonCommercial-ShareAlike 4.0 International.

Credits: City Tech WAC Program, 2022-2023 Fellows: Melanie Brown, Michael Greer, Giovanna Marques Kuele, Christopher Liong, Weiheng Sun, Eric Wilson.

The PowerPoint will be available on the WAC OpenLab Page:

https://openlab.citytech.cuny.edu/writingacrossthecurriculum/student_workshops/

If you have any further questions, feel free to visit:

https://openlab.citytech.cuny.edu/writingacrossthecurriculum/