

How to Write an Abstract



Brought to You by
The WKU Student Research Council

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Updated by Dr. Scott Arnett, Kinesiology, Recreation, and Sport Department



The WKU Student Research Conference

- What's the purpose of the conference?
 - To showcase how WKU students have enriched their academic experiences by engaging in scholarly and creative activities
- When does the conference take place?
 - April 1-2, 2016



The WKU Student Research Conference

- Who can participate?
 - Undergraduate and graduate students from all majors and disciplines
- What can be presented?
 - Papers
 - Posters, exhibits and displays
 - Performances
 - Videos
- Where is the conference held?
 - Downing Student Union



The WKU Student Research Conference

- How do students apply?
 - Submit an **abstract** online at www.wku.edu/studentresearch
- Submissions accepted until February 19, 2016



What is an Abstract?

- A miniature version of a paper/poster
- Provides a brief summary of the main sections of a paper
 - Introduction/Research Question/Goal/Intent
 - Materials and Methods
 - Results
 - Discussion



Purpose

- Why do we care about the problem?
- Why did you do the research?
- Ideally in one sentence
 - State primary objectives
 - Scope of the study
 - Reason why the creative work was undertaken



Methods/Procedures/Approach

- What did you do to get your results?
- State the techniques and/or approach
- For those in the humanities and some social sciences, describe your sources and your use or interpretation of the sources



Results/Findings/Product

- Informatively and concisely describe:
 - The results
 - The data collected
 - The effects observed
- Give special priority to new and verified findings
- Concisely mention limits to accuracy or reliability



Conclusion/Implications

- Why is your study important to the field?
- How do your findings relate to the purpose of your investigation?
- Conclusions generally include a statement discussing recommendations and suggestions.



Does your abstract answer the following questions:

- What are you asking?
- Why is it important?
- How will you study/create/interpret it?
- What will you use to demonstrate your conclusions?
- What are those conclusions?
- What do they mean?

<http://undergraduateresearch.ucdavis.edu/urcConf/write.html>



To review, an abstract should...

- State the principal objectives
- Describe the methods employed/
approach taken
- Summarize the results/findings/
product
- State the principal conclusions/
outcomes/implications



What shouldn't be included in my abstract?

- Tables, figures, or references
- Obscure abbreviations and acronyms
- Nonessential information
- Jargon and casual writing

Abstracts are limited to 200 characters.



How do I write an abstract?

- Outline Approach
 - Write an outline based upon the 4 components
 - Compose the abstract
 - Add words and evidence for cohesiveness
 - Edit for formatting and conciseness

How do I write an abstract?

- Cut and Paste Approach
 - Highlight key points from the finished document
 - Cut and paste into a new document
 - Synthesize, Add, Remove, Edit

How do I write an abstract?

Abstract MadLibs!!

This paper presents a _____ method for _____
(synonym for *new*) (sciencey verb)
the _____. Using _____, the
(noun few people have heard of) (something you didn't invent)
_____ was measured to be _____ +/- _____
(property) (number) (number)
_____. Results show _____ agreement with
(units) (sexy adjective)
theoretical predictions and significant improvement over
previous efforts by _____, et al. The work presented
(Loser)
here has profound implications for future studies of
_____ and may one day help solve the problem of
(buzzword)
_____.
(supreme sociological concern)

Keywords: _____, _____, _____
(buzzword) (buzzword) (buzzword)



Before You Submit ...

- Read the abstract aloud
- Check grammar and spelling
- Have a peer review it
- Recheck stats and all numerical values
- Ensure the abstract conforms to the guidelines
- Ensure the abstract includes the 4 components

Resources for Writing

- <http://www.wku.edu/writingcenter/>
 - The Writing Center offers individual conferences about writing with a staff of English majors and graduate students. Their services are available to all Western Kentucky University students
- <http://grammar.ccc.commnet.edu/grammar/concise.htm>
- <http://writingcenter.unc.edu/handouts/writing-concisely/>
- How to write and publish a scientific paper; 7th Edition, Robert A. Day and Barbara Gastel; Greenwood Publishing Group

Additional Resources


- Tips and Guidelines for writing abstracts
 - <http://mcnair.ucsb.edu/documents/TheDosandDontsofWritinganAbstract.pdf>
 - <http://writingcenter.unc.edu/handouts/abstracts/>
 - <https://www.honors.umass.edu/abstract-guidelines>
 - <https://owl.english.purdue.edu/owl/resource/656/1/>
 - <http://undergraduateresearch.ucdavis.edu/urcConf/write.html>




Additional Resources

- <http://www.wku.edu/studentresearch/>
 - Sample abstracts from past conferences
- <http://writingcenter.unc.edu/handouts/abstracts/>
 - Tips and guidelines for writing abstracts

Abstracts are published

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How do I write concisely?

<http://writingcenter.unc.edu/handouts/writing-concisely>

1. Eliminate redundant pairs

Example: For each and every book you purchase, you will receive a free bookmark.

Revision: For every book you purchase, you will receive a free bookmark.

2. Delete unnecessary qualifiers

Example: Because a great many of the words in this sentence are basically unnecessary, it would really be a very good idea to edit somewhat for conciseness.

Revision: Because many of the words in this sentence are unnecessary, we should edit it.

How do I write concisely?

3. Identify and reduce prepositional phrases

Example: The reason for the failure of the basketball team of the University of North Carolina in the Final Four game against the team from Kansas was that on that day and at that time, some players were frequently unable to rebound the ball.

Revision: UNC's basketball team lost the Final Four game against Kansas because it could not consistently rebound the ball.

4. Locate and delete unnecessary modifiers

Example: Do not try to anticipate in advance those events that will completely revolutionize society.

Revision: Do not try to anticipate revolutionary events.

How do I write concisely?

5. Replace a phrase with a word

Example: In the event that going out for the purpose of eating with them cannot be avoided, it is necessary that we first go to the ATM, in light of the fact that I am out of cash.

Revision: If we must go out to eat with them, we should first go to the ATM because I am out of cash.

6. Identify negatives and change them to affirmatives

Example: If you do not have more than five years of experience, do not call for an interview if you have not already spoken to human resources.

Revision: Applicants with more than five years of experience can bypass human resources and call for an interview.



Example Abstracts

What is good and bad about the following sample abstracts?



Example Abstract 1

"Line Work Across Different Mediums"

My goal in researching line work in art and design is to increase my knowledge with how subtle line work is utilized to convey shape, emotion, and context. This desire to explore line stems from my own personal approach to artwork. Though seemingly only a solitary ingredient to an art piece, line work can be used to summarize many elements including, but not limited to, value, texture, form, and space. The resulting trio of posters are based on the following artists, each within their own field: Sculptor Benedict Radcliffe, infamous street artist Zevs, and designer/illustrator Gianmarco Magnani.

Example Abstract 2

"Teleological Reasoning In Adults: Believing In The Purpose Of Events"

Teleological beliefs reflect our bias to view objects, behaviors and events in terms of their function or "purpose." Although previous studies have shown that healthy, educated adults tend to refrain from committing teleological errors about objects, our knowledge of how adults reason about events is limited. The present study recruited a sample of undergraduate adults and sought to directly compare teleological beliefs about objects and events and how one's level of religiosity relates to both types of beliefs. Results indicate one's likelihood to commit teleological errors regarding objects is positively associated with a tendency to commit teleological errors about events. Participants high in religiosity were significantly more likely to commit errors than individuals moderate to low in religiosity. These findings suggest degree-seeking adults remain prone to errors in teleological reasoning and religiosity may affect this tendency.



Example Abstract 3

"Dung Beetle Diversity Of The Nimba Mountain Range, Guinea, West Africa: An Indicator Group For Ecosystem Health"

The value of the Nimba Mountain Range of West Africa has created a conflict of interest in recent decades. The Mountains are rich in easily mined, high grade iron ore. However, it is also a World Heritage Site, and is home to a number of threatened, endemic species, including orchids and a viviparous toad. Nevertheless, mining concessions were granted and exploratory drilling is currently being done. In June of 2010 and 2011, dung beetles were sampled for their ability to act as indicator taxa for ecosystem health on the Nimba Range, Guinea in a variety of habitats. Samples processed in the fall of 2010 suggest that mining, forest exploitation, and other human activities currently taking place are overwhelmingly detrimental to the flora and fauna of the region, particularly the large mammals.



Example Abstract 4

"A Savage Journey Into The Life Of Hunter S. Thompson"

Hunter S. Thompson, a Kentucky native, is an amazing and intriguing figure. His writings give us a look at different facets of his cultural interpretation of the sixties and seventies. He spent much of his life searching for his translation of the American Dream and living on "the edge." As he states in one of his novels, "There is no honest way to explain it because the only people who really know where the edge is are the ones who have gone there." Readers are either delighted or mesmerized by Thompson's writing skills and strong opinions, or they are appalled at his risqué subject matter and profoundly obscene language. This essay examines how Thompson lived life his way and documented his journey all the way to the end, leaving literature for generations to read and analyze, criticize, or admire.

Example Abstract 5

"Truth And Photography"

This presentation demonstrates that the truth we find in photography is not universal but one that is coded to us. When looking at a photograph we find the truth that relates to our own feelings and experiences. Phenomenology states that all knowledge and truth comes from our own subjective experiences and not only from the things themselves. As there are no universal truths that all people can claim to believe, it is impossible for a photograph to provide one. A photograph can explain how a photographer thinks, sees, and produces an image but also present conflicting and sometimes misleading messages. By indicating this thought process, I will show how one can better understand how a photograph and the connotation within a photograph are the product of perspective and past experiences



Example Abstract 6

"Rhythm Of My Sole"

Tap dancing was the first dance form that was created here in America. It is the perfect representation of the mosaic that is America because tap dancing is the fusion of dances that slaves and immigrants brought with them. This fusion has been passed down and evolves everyday. When it was created it was used to celebrate; later it was used in musicals and shows to entertain; now it stands on it's own in concert setting and tells stories, shows emotions, and still entertains. I have created four tap dances; each is different in the story it tells or the emotions it portrays. I will present them in a concert form to entertain and show the audience that tap dancing can move you emotionally just as other art forms do.



More Abstract Examples

Growth Hormone (GH) has been shown to improve hair cell regeneration when injected into zebrafish post-sound exposure. The purpose of this study was to examine whether exogenous GH has a prophylactic effect on auditory hair cell damage. Groups of zebrafish were injected with either GH or buffer. Then, auditory hair cell damage was induced through acoustic overstimulation. Fish ears were dissected immediately post-trauma, and at 1, 2, and 3 days following exposure, and saccules were then subjected to phalloidin staining and visualized under fluorescence microscopy. Hair cell damage was reduced following trauma in GH-treated zebrafish in comparison to controls. The results show that GH has a prophylactic effect on zebrafish auditory hair cell damage.



Abstract Example cont.

We develop a set of nonlinear dynamical equations by applying the Einstein Field equations for gravity to a highly specialized metric function that has terms for both standard matter and matter that has an absolute negative pressure similar to quantum exotic matter. Using the Maple environment we calculate the required Einstein, Riemann, and Ricci tensors leading to the dynamical field equations. The resulting geometry is an example of the Alcubierre metric which produces spacetime distortions equivalent to the motion of a superluminal traveler. Our goal is to use the geodesic equations of motion and an embedding diagram procedure to characterize the effects of the Alcubierre metric on the geodesic motions in the neighborhood of the matter terms.



Abstract Example cont.

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Questions about How to Write an Abstract?



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