

# **Abstract Writing Instructions**

## **What are Abstracts?**

An abstract is a concise summary of a larger document – thesis, essay, book, research report, journal publication, etc. – that highlights major points covered in the work, concisely describes the content and scope of the writing, identifies the methodology used, and identifies the findings, conclusions, or intended results.

## **Why are they important?**

- Abstracts make it possible for readers to quickly determine the content of a work and decide if the full text should be consulted.
- They are vital when searching online, since the keywords you search with will be highlighted in the body of the abstract as well as the text.
- They help others outside your discipline understand the purpose and value of your work.

## **Qualities of a good abstract:**

- uses one or more well-developed paragraphs that are coherent, concise, unified, and able to stand alone;
- presents a work's purpose, methods, results, and conclusions, ideally in that order;
- strictly follows the chronology of the work;
- provides logical connections/transitions between the information included;
- adds no **new** information, but simply offers a summary;
- does not include any evaluation, reviews, or opinions on the research;
- is understandable to a wide audience

## **Requirements for the Undergraduate Research Symposium:**

- For the Undergraduate Research Symposium application, your abstract should be no longer than 300 words and no more than one paragraph.

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## **Steps for Writing Effective Abstracts:**

### **I. Reread or review the research you have completed or are currently working on.**

- Look for the following main parts of the work: purpose (thesis), methods, scope, results, conclusions, and recommendations.
- Use the headings, outline heads, and table of contents to guide your abstract writing.

## II. After you've finished rereading your work, write a rough draft without looking back through your work.

### A. Make the abstract easy to read

- Generally, an abstract is easier to read when the thesis or purpose statement is first, or at least near the beginning of the abstract.
- Use the past tense when describing what was done. However, where appropriate use active verbs rather than passive verbs.
- Use short sentences, but vary sentence structure to avoid chopiness.
- Use complete sentences. Don't omit articles or other small words to save space.
- Avoid jargon, the specialized vocabulary of a trade or profession.

Example: **The VDTs in composition were down last week.**

Revision: **The video display terminals were down last week.**

- For science-based work, use scientific names instead of local names.
- Use the same tone and emphasis used in the original.

### B. Be concise

- Revise the key sentences from your thesis to provide just enough information for the reader.
- Summarize rather than repeating the way information was presented in your thesis. Try using the outline purpose→methods→results→conclusions.
- Avoid repeating information given in the title.
- Give the information only once.
- Use standard abbreviations.
- Be exact and unambiguous.

## III. Revise your rough draft

- Improve transitions (e.g., "although," "while," "however").
- Drop unnecessary words like a hot potato.
- Fix errors in grammar, spelling, and punctuation.
- Read it out loud. (This isn't fun, but it really helps in revising and proofreading.)
- Give your abstract to someone else to read, preferably someone who knows nothing about your topic. Does it make sense to them? If yes, celebrate. If not, keep working.

## Abstract Examples

### Social science examples:

#### **Immigration and Immigrant Policy: Guatemalans in Georgetown, DE**

Matthew J. Fouse (Mark J. Miller), Department of Political Science and International Relations, University of Delaware, Newark, DE 19716

This study focuses on immigrant or integration policy as it currently applies to the Guatemalan immigrant population in southern Delaware. It concludes that policy makers in Delaware should consider the current need for public intervention in immigrant integration because the possibility exists that a permanently socio-economically disadvantaged population will emerge along ethnic lines. Living in Georgetown, the investigator employed three research methods: unstructured interviews, observation, and document research. The paper is composed of three primary divisions, each made up of several sections. The first division presents the background of the integration question in Georgetown, DE, and environs. There follows a comprehensive disaggregation of the integration issues that face the Guatemalan population. Finally, a discussion of immigrants and immigration policy looks towards creating an immigrant policy in Delaware. Results support the assertion that there is a need for active state intervention in immigrant integration by means of an explicit immigrant policy in Delaware.

#### **Automatic and Intentional Processes in Children's Recognition Memory: The Reversed Misinformation Effect**

by Robyn Holliday and Brett Hayes. **Source:** Copyright © 2002 John Wiley & Sons, Ltd.

This study investigated the contribution of automatic and intentional memory processes to 5- and 6-year-old children's suggestible responses in a reversed misinformation paradigm. The temporal order of the conventional eyewitness paradigm was altered such that children were initially presented with a pre-event narrative containing misinformation that was either read to them or was self-generated in response to semantic and linguistic cues, and the following day were presented with a witnessed event in the form of a picture story. Children then completed a standard forced-choice recognition memory test under two instruction conditions. In the inclusion condition children were reminded about the presentations of the pre-event narrative and the original story and asked to choose the witnessed event item. In the exclusion condition children were instructed to exclude pre-event suggestions. Suggestibility effects were found with the magnitude of such effects differentially affected by the encoding of misleading suggestions and test instructions. In the exclusion condition, children were more likely to correctly reject suggestions that were self-generated. Both automaticity and intentional recollection contributed to children's suggestible responding.

### Humanities examples:

#### **Women and Silver in Late Antiquity: Interpretations of the Projecta Casket**

Rebecca B. Reidel (Lawrence Nees), Department of Art History, University of Delaware, Newark, DE 19716

This paper explores the imagery on the Projecta Casket, a fourth-century silver plate box originally from Rome and now in the permanent collection at the British Museum. The decorative

program on the casket is created on the surface of the silver through repoussée, or hammering out from the inside to create relief designs. The visual program can be divided into three levels: the lower register encircling the body of the casket, the upper register decorating the pyramidal sides of the lid, and the image comprising the top panel of the lid. Each of these layers is decorated with figures, most of which are female. In his forthcoming article "Visualizing Women in Late Antique Rome: the Projecta Casket," J. Elsner insists on a sexually charged reading of the images of women as a complex iconography that objectifies women for the pleasure of a male audience. In contrast, based upon a detailed study of the secondary literature and on an attempt to place the object within its original fourth-century Roman context, my argument is that the images of women more likely intended for a female viewer, for whom they glorify fertility and the female form. I also suggest that the scenes on the casket may represent pagan festival rites dedicated to the goddess Venus, who embodies the glory of woman.

### **Labor in Three Dimensions: Reportage of the 1930s**

Daniel G. Steinberg (Eugene McCarraher), Department of History, University of Delaware, Newark, DE 19716

In the 1930s, a decade of labor strife and epic victories, a wide variety of writers were drawn to the American labor movement. Some produced fictional works about the working class, but many wrote articles on labor conflicts for the three weekly magazines of the American Left: *The Nation*, the *New Republic*, and the *New Masses*. Often, these articles were at once informative news stories and imaginative attempts to make labor struggles come alive for readers. Such writing was, during the thirties, referred to as "reportage." This essay describes and analyzes the labor reportage of the thirties, specifically concentrating on the motivations of writers and journalists who were drawn to labor, and the techniques they used. It focuses first on the temporal causes of this outpouring of labor writing: the upsurge in labor activity, and the Left's profound dissatisfaction with the labor coverage obtained in mainstream newspapers. Next an analysis is given of the techniques writers used in their labor reportage: first- and second-person narratives that helped throw middle-class readers into working-class struggles; a combination of hard statistics and bloody anecdotes; and a reliance on the words of actual workers. The paper concludes by suggesting that if organized labor truly desires the cultural renaissance advocated by many of its supporters, the gripping and informative labor reportage of the 1930s might serve as a useful example.

### **Art example:**

#### **Remember to Call: Portraits of Post Adolescent Anxiety.**

Amy D. Shapiro (Robert L. Straight), Department of Art, University of Delaware, Newark, DE 19716

This project consists of three related paintings, oil and acrylic on canvas, all sized approximately 28"x32" and titled "Decathect." The project began with an exploration of the female gaze, which lent itself to the genre of portraiture and the subject of post-adolescence, mostly picturing women. The title was chosen to reflect a microcosmic/macrocosmic relationship in that Remember to Call recalls a personal fear of abandonment while Portraits of Post Adolescent Anxiety refers to more external pressures and universal feelings such as hopelessness, self-consciousness, and powerlessness, in spite of which I have tried to imbue these paintings with a seed of hope. One goal of the works is to use an entire canvas to convey expression and not to rely on the portrait alone. The paintings are meant to be psychological, challenging the artist and the viewer to find balance and harmony. One means for the viewer to engage in a dialogue with these paintings is by using the non-space that surrounds the subject, an environment that may be

interpreted as encroaching, or passive, or both. The title decaethesis refers to a detachment of a subject from his or her feelings and anxieties. The subjects, portrayed as they come out of adolescence and into a tumultuous adulthood, are influenced by many external pressures. They are complex individuals, strong, interesting, but not invulnerable to the offensive conditions of the world. Although they experience pangs of doubt, powerlessness, and acute solitude, ingrained in them also is an element of hope. (Supported by the University of Delaware Arts and Humanities Scholars Program)

## **Science examples:**

### **Role of Metal Ions in Oxidative Protein Folding: Do Flavoprotein Sulfhydryl Oxidases Need Metals?**

Stephen G. Brohawn and Irena Rudik Miksa (Colin Thorpe), Department of Chemistry and Biochemistry, University of Delaware, Newark, DE 19716

Each disulfide bond generated during the oxidative folding of secreted proteins requires removal of 2 electrons. In higher eukaryotes, sulfhydryl oxidases have been found to catalyze this process with reduction of oxygen to hydrogen peroxide. Both metal-dependent and flavin-dependent classes of these oxidases have been described. The first protein sequence of a metal-dependent enzyme, from a copper-containing skin sulfhydryl oxidase, has been recently published and is 51% identical to the sequence for a flavin-dependent sulfhydryl oxidase already studied extensively in our laboratory. Thus we were concerned that our work on the emerging flavin-dependent sulfhydryl oxidases had missed an important additional copper cofactor. The present study establishes that the best-studied flavin-dependent oxidase contains no significant copper or other metals, and that copper and zinc are inhibitors of disulfide bond formation. Studies with zinc as a model divalent metal show that it binds to CXXC centers and drastically perturbs the flow of reducing equivalents in this multi-domain enzyme. Similarly, copper binds within the active center close to the flavin prosthetic group. Our metal analyses show that the flavin-dependent oxidase is prone to bind metals, and this may have misled earlier workers. Thus the evidence that the skin sulfhydryl oxidase requires copper (rather than flavin) for enzyme activity should be reexamined. (Supported by the Beckman Scholars Program and NIH GM26643)

### **Surface Micromachined Force Gauges: Uncertainty and Reliability**

by Jonathan Wittwer, Troy Gomm, and Larry Howell. **Source:** Department of Mechanical Engineering, Brigham Young University, Provo, UT. Published 11 December 2001.

Surface micromachining of micro-electro-mechanical systems (MEMS), like all other fabrication processes, has inherent variation that leads to uncertain material and dimensional parameters. By considering the effects of these variations during the design of micro force gauges, the gauge uncertainty and reliability can be estimated. Without the means of calibrating micro gauges, these effects are often significant when compared to experimental repeatability. The general force gauge model described in this paper can be used to measure a wide range of forces, and simple design changes can lead to improved accuracy in measurement. A method of probabilistic design is described that is not limited to small beam deflections.

## More examples of abstracts

**Title:** *The Black Dandyism of George Walker: A Case Study of Genealogical Method*

by Barbara L. Webb **Source:** The Drama Review, 2001

**Abstract:** Most scholarly and popular discussions of African American performance at the turn of the 20th century focus on the limitations of the minstrelsy "trap" that confined these performers to interpretations of existing stereotypes. 1 Such assessments discount the possibilities for agency within these "minstrelsy- derived entertainments," including those that proceeded from minstrelsy's traditions of satire and parody, and the related intrinsic threat of a joke failing to remain a joke. In a recent issue of TDR, Michele Wallace called for an increased acceptance and interrogation of black participation in minstrelsy and an appreciation of black performers' accomplishments in this field (2000:144-45). I hope this essay contributes to just such a project.

George Walker's performance of the black dandy constituted a refusal to echo minstrel caricatures by causing the standard "joke" of the well-dressed, suave black man to fail, to be reclaimed by its object. An investigation of the resources available to Walker to perform such a sleight of hand turns up a possible kinship link with an unlikely relative: the European and Euro-American dandies who provided much of the inspiration for the initial minstrel joke. My contention is that Walker reclaimed the dandies' point of view from the minstrels, rearticulating it from within an African American context. The theoretical impetus for this line of inquiry is *Cities of the Dead* (1996), Joseph Roach's provocative, controversial study of circum-Atlantic performance.

**Format:** First paragraph of introductory information followed by clear thesis or claim, method, re-statement of the thesis/purpose, and conclusion.

**Title:** *The Wild Ways and Paths of Pleasure: Access to British Waterfalls, 1500-2000*

by Brian J. Hudson **Source:** Landscape Research, 26.4; 285-303.

**Abstract:** In Britain the rise of tourism, largely associated with the Romantic taste for landscape, encouraged travel to relatively inaccessible areas. Among travelers in search of the picturesque and the sublime, waterfalls were particularly popular, but these were commonly difficult and dangerous places to visit. The impact of tourism on the evolution of the landscape at waterfall sites over a period during which people traveled to tourist centres on horseback, by coach, by rail and by motor vehicle is examined. Drawing on topographical, travel and tourist literature from the sixteenth century to 2000, together with extensive field observation, the evolution from the 'natural' to the designed landscape, created to meet the needs of, and to attract, visitors, is considered. It is demonstrated how, while facilitating visits to natural attractions such as waterfalls, improved access and the provision of amenities have changed valued landscapes and, hence, the visitor's experience of them.

**Format:** Clear, brief introduction followed directly by the thesis/statement of purpose, the methodology, and the conclusion/findings.

**Title:** *The Scratch Orchestra and Visual Arts*

by Michael Parsons. **Source:** The Drama Review, 2001

**Abstract:** The Scratch Orchestra, formed in London in 1969 by Cornelius Cardew, Michael Parsons and Howard Skempton, included visual and performance artists as well as musicians and other participants from diverse backgrounds, many of them without formal training. This article deals primarily with the earlier phase of the orchestra's activity, between 1969 and 1971. It describes the influence of the work of

John Cage and Fluxus artists, involving the dissolution of boundaries between sonic and visual elements in performance and the use of everyday materials and activities as artistic resources. It assesses the conflicting impulses of discipline and spontaneity in the work of the Scratch Orchestra and in the parallel activity of the Portsmouth Sinfonia and other related groups. The emergence in the early 1970s of more controlled forms of compositional activity, in reaction against anarchic and libertarian aspects of the Scratch Orchestra's ethos, is also discussed.

**Format:** Single introductory statement immediately followed by the thesis/purpose and the methodology as well as some additional sub-theses considered.

**Title:** *Freedom and Recognition in Hegel and Habermas*

by K. Baynes. **Source:** Philosophy & Social Criticism, 28.1, 1-17.

**Abstract:** Contrary to some popular interpretations, I argue that Hegel and Habermas share many basic assumptions in their respective accounts of freedom. In particular, both respond to weaknesses in Kant's idea of freedom as acting from (certain kinds of) reasons by explicating this idea with reference to specific social practices or 'forms of recognition' that in turn express suppositions and expectations that actors adopt with respect to one another. I illustrate this common strategy in each and suggest that it may offer an alternative to Rawls's 'political' account of public reason.

**Format:** Primary thesis clearly stated at the beginning of the abstract, followed by a further break down of that thesis, the method, and the conclusion.

**Title:** *Francis Bacon's Concept of Objectivity and the Idols of the Mind*

by Perez Zagorin. **Source:** The British Journal for the History of Science (2001), 34: 379-393.

**Abstract:** This paper examines the concept of objectivity traceable in Francis Bacon's natural philosophy. After some historical background on this concept, it considers the question of whether it is not an anachronism to attribute such a concept to Bacon, since the word 'objectivity' is a later coinage and does not appear anywhere in his writings. The essay gives reasons for answering this question in the negative, and then criticizes the accounts given of Bacon's understanding of objectivity by Lorraine Daston and Julie Robin Solomon. It argues that this understanding is most directly and fully expressed in his discussion of the idols of the mind. In this connection, the paper notes Bacon's critical attitude to sixteenth-century skepticism and its relevance to the idea of objectivity implicit in his comments on the idols. In conclusion, the paper argues that Bacon was not a pure empiricist and describes the place assigned to theories and hypotheses in his natural philosophy.

**Format:** Purpose is stated at the beginning, followed immediately by the method, and conclusions/findings. \*Slightly different format that distinguishes the purpose of the study from the thesis - purpose is expressed at the beginning, the methods for exploring the purpose follows. The author then states the conclusion, which is also the argument or thesis of the work.

