Abstracts Clinic

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Graduate Research and Innovation Center (GRIC)
University of Puerto Rico, Mayagüez Campus

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Preface

Your advisor has approved:

- Full scholarship
- Full tuition
- Monthly stipend
- Travel allowance
- Books and materials grant
- Health insurance coverage

February 1, 2016

TREVOR OWEN de CLERCQ

Dear Trevor:

Congratulations! On behalf of the Admissions Committee I am pleased to inform you that your application for admission to the study commencing with the Fall 2016 semester. You have been admitted to the PHD degree program with a major in Theory. This admission is contingent upon satisfactory completion of any current studies in progress.

Your admission is based on the strongest recommendation of the Faculty and the Admissions Committee. Information on your financial aid is enclosed with this letter of acceptance.

Graduate students (which may include Eastman tuition scholarships, assistantships, federal loans, etc.) by the Associate Dean of Graduate Studies for which your final decision must be community financial aid should be made before enrollment.

Sincerely,

[Signature]

Office of Admissions
Preface

Work, work, write

write, publish,

PUBLISH!!!!!!!
“Publish or Perish!” – A Graduate Student's Call to Action

BEGIN

Idea → Research → Write → Publish → REPEAT

Perish!  Perish!  Perish!  Perish!
Preface

“It’s publish or perish, and he hasn’t published.”
Preface

Getting published helps an investigator:

- Share research findings and lay the foundation for further work
- Receive feedback from colleagues
- Become part of the scientific community
- Benefit from the exchange of ideas
- Learn about what others have done and establish valuable collaborations with other investigators

- Advance knowledge and scientific discovery!
Preface

The most crucial aspect of getting published is: writing a good abstract!

Do you know the key aspects of writing an abstract?
Overview

- Writing abstracts, summaries, and synopses is a necessary part of academic and professional work.

- Preparing such professional/technical documents requires concise, clear, and relevant writing.

- Abstracts should be tailored for a specific discipline and audience, and must stick to the guidelines of the course, project and/or publishing entity.
Roadmap

- Definition
- Good abstract
- Abstract Purpose
- Emphasis informative abstract
- Abstract examples
- Abstract types
- Practice exercise
- Questions
What is a “call for abstracts”?

https://www.ueg.eu/week/abstract-submission/call-for-abstracts/
What does a “call for *abstracts*” request looks like?

“The Abstract should be *informative* and completely self-explanatory, briefly present the topic, state the scope of the experiments, indicate significant data, and point out major findings and conclusions. The Abstract should be 100 to 200 words in length. Complete sentences, active verbs, and the third person should be used, and the abstract should be written in the past tense. Standard nomenclature should be used and abbreviations should be avoided. No literature should be cited”.

* how_to_write_an_abstract_UCSB.pdf
What does a “call for abstracts” request looks like?

- “Abstracts should contain a maximum of 250 words and should not contain figures. All accepted abstracts submitted before the deadline will be published in the Abstract and Programme book. It is your responsibility to ensure that your abstract is correct.”

[how_to_write_an_abstract_ucsb.pdf]
What is an **abstract**?

- An **abstract** is a concise, objective description of a written work.
- It is usually located at the beginning of a document to give readers a quick overview of its contents.
- Abstracts are used in different document types:
  - Journal articles
  - Books
  - Reviews
  - Technical reports
  - Patent specifications
  - Conference and symposium proceedings
  - Theses
  - Dissertations
What makes a good abstract?

The ABCs of a good abstract:

- **Accuracy**
  - A good abstract uses one well-developed, coherent paragraph
  - It covers all the essential academic elements of the full-length document
    - Introduction
    - Purpose
    - Methods
    - Results
    - Conclusions

www.indiana.edu/~wts/
What makes a *good abstract*?

The ABCs of a *good abstract*:

- **Brevity**
  - A good abstract is:
    - concise
    - contains precise language
    - stands alone as a unit of information.
  - A good abstract does not include:
    - superfluous adjectives, verbosity or redundancy
    - personal narrative, opinion or commentary
    - figures, tables or graphs
What makes a **good abstract**?

The ABCs of a **good abstract**:

- **Clarity**
  - Often uses the third person
  - Uses active voice, although sometimes passive voice can be used to describe the researchers’ actions
  - Avoids contractions/acronyms/abbreviations
  - Does not contain:
    - Jargon
    - Colloquialisms
    - Literature citations
What are the purposes of an abstract?

1. To give readers a short summary of a document’s topic, methodology and main findings
2. To function as a screening device, helping readers decide whether they wish to read the whole article or not
3. To serve as a road-map for readers
4. To provide indexing help for professional abstract services and editors
What are the different types of *abstracts*?

*Abstracts* can be either:

1. Descriptive
2. Informative
3. Structured
4. Graphical
5. Executive Summary
What are descriptive *abstracts*?

- They are also called *limited or indicative abstracts*.
- They present the table of contents in paragraph form and sketch out the purpose, problem, and scope of the document (NOT the results, conclusions or recommendations).
- They are generally used for humanities and social science papers, psychology essays or conferences.
- They typically contain around 50 words.
What are informative *abstracts*?

- They are also called *traditional* or *complete abstracts*.
- They provide a condensed discussion of the important points, such as results, discussion and conclusion.
- They are most likely used for sciences and engineering.
- They may be designed as standalone documents and normally contain 100 to 350 words.
What are structured *abstracts*?

- They are helpful in assisting health professionals to select clinically relevant and methodologically valid journal articles.
- These are currently being used in behavioral, social, biological, and other health care-related science journals.
- They have subheadings similar to those in a paper and may include: introduction, methods, results and discussion (IMRaD).
- It is acceptable to present a single figure or table in a structured abstract, as long as it helps explain data more clearly.
What are graphical *abstracts*?

- Graphical abstracts are single, concise, pictorial and visual summaries of the main findings of an article.

- They are intended to encourage browsing, promote interdisciplinary scholarship, and help readers identify more quickly which papers are most relevant to their research interests.

- It can be the concluding figure from the article or a figure that is designed for this purpose, which captures the content of the article for readers at a single glance.

https://www.elsevier.com/authors/journal-authors/graphical-abstract
What are *executive summaries*?

- Executive summaries are extended, standalone abstracts that have both informative and descriptive characteristics.
- They contain both the substance and the structure of the report.
- They are normally used with large technical reports, such as formal proposals, and other fully developed business or technical documents.
- They should be as long as 10–25% of the whole document.
Abstract Examples by Abstract Type

Descriptive, Informative, Structured, Graphical and Executive Summary sample abstracts
The opportunity to design and deliver short programs on referencing and avoiding plagiarism for transnational UniSA students has confirmed the necessity of combating both the ‘all-plagiarism-is-cheating’ reaction and the ‘just-give-them-a-referencing-guide’ response. The notion of referencing is but the tip of a particularly large and intricate iceberg. Consequently, teaching referencing is not adequate in educating students to avoid plagiarism. In this presentation, I will use the transnational teaching experience to highlight what educating to avoid plagiarism entails.
Metalinguistic awareness contributes to effective writing at university. Writing is a meaning-making process where linguistic, cognitive, social and creative factors are at play. University students need to master the skills of academic writing not only for getting their degree but also for their future career. It is also significant for lecturers to know who our students are, how they think and how we can best assist them. **This study examines first-year undergraduate Australian and international engineering students as writers of academic texts in a multicultural setting at the University of Adelaide.** A questionnaire and interviews were used to collect data about students’ level of metalinguistic awareness, their attitudes toward, expectations for, assumptions about and motivation for writing. The preliminary results of the research show that students from different cultures initially have different concepts about the academic genres and handle writing with different learning and writing styles, but those with a more developed metalanguage are more confident and motivated. The conclusion can also be drawn that students’ level of motivation for academic writing positively correlates with their opinion about themselves as writers. Following an in-depth multi-dimensional analysis of preliminary research results, some recommendations for writing instruction will also be presented.

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**Descriptive abstract example**

*(Zoltan, 2005) – Academic writing*

Metalinguistic awareness contributes to effective writing at university. Writing is a meaning-making process where linguistic, cognitive, social and creative factors are at play. University students need to master the skills of academic writing not only for getting their degree but also for their future career. It is also significant for lecturers to know who our students are, how they think and how we can best assist them. **This study examines first-year undergraduate Australian and international engineering students as writers of academic texts in a multicultural setting at the University of Adelaide.** A questionnaire and interviews were used to collect data about students’ level of metalinguistic awareness, their attitudes toward, expectations for, assumptions about and motivation for writing. The preliminary results of the research show that students from different cultures initially have different concepts about the academic genres and handle writing with different learning and writing styles, but those with a more developed metalanguage are more confident and motivated. The conclusion can also be drawn that students’ level of motivation for academic writing positively correlates with their opinion about themselves as writers. Following an in-depth multi-dimensional analysis of preliminary research results, some recommendations for writing instruction will also be presented.
Unknown, Pediatric medicine

Introduction: Mechanical ventilation (MV) is commonly employed in support of pediatric ICU (PICU) patients who exhibit respiratory dysfunction. Many RC departments employ protocols to reduce the incidence or duration of MV in this population. Scant empirical information exist which identify various baseline factors that are associated with MV in this population. As a result, few protocols account for contributory factors in the development of treatment protocols. The purpose of this study is to examine factors associated with pediatric MV.

Methods: 1979 PICU admissions were included in this retrospective, case-control study. Co-morbidities such as age, prior ICU admission, operative status, and diagnosis, as well as, worst perturbed physiologic parameter during first 24 hours following admission were captured for each of the 1979 patients. Cases were identified as those patients who required MV at anytime during their PICU admission. Once patients were appropriately identified (case/control), the comorbidities and physiologic derangements were examined using bivariate analysis to identify those factors that were associated with the need for MV.

Results: The result are shown in the following table:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Cases (n=754)</th>
<th>Controls (n=1225)</th>
<th>p.-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>5.4 ± 5.8</td>
<td>6.9 ± 6.1</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>BP systolic (highest)</td>
<td>118 ± 23</td>
<td>122 ± 19</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Heart Rate (highest)</td>
<td>153 ± 29</td>
<td>142 ± 29</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>pH(highest)</td>
<td>7.42 ± 0.09</td>
<td>7.37 ± 0.16</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Previous ICU</td>
<td>162/754 (27%)</td>
<td>115/1225 (9%)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Cardiac arrest</td>
<td>16/754 (2%)</td>
<td>11/1225 (1%)</td>
<td>0.023</td>
</tr>
<tr>
<td>Cardiac arrhythmias</td>
<td>109/754 (14%)</td>
<td>91/1225 (7%)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Meningitis</td>
<td>29/754 (4%)</td>
<td>22/1225 (2%)</td>
<td>0.005</td>
</tr>
<tr>
<td>Pneumonia</td>
<td>163/754 (22%)</td>
<td>104/1225 (8%)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Sepsis</td>
<td>331/754 (44%)</td>
<td>377/1225 (31%)</td>
<td>&lt;0.001</td>
</tr>
</tbody>
</table>

Conclusions: Our study demonstrates that a variety of factors, present or immediately following PICU admission are associated with the need for MV in our pediatric population. The importance of these and other factors in predicting the need for or duration of MV in a PICU population must be further delineated. Identification of contributory factors associated with MV, as identified in this study, may further aid practitioners in the development of treatment protocols that target MV support and duration.
Automatic inference of articulated spine models in CT images using high-order Markov Random Fields, Samuel Kadoury, Hubert Labelle, Nikos Paragios, Medical Image Analysis.


https://www.elsevier.com/authors/journal-authors/graphical-abstract
Executive summary example

(Woodward-Kron, 1997) - Accounting and finance

This report provides an analysis and evaluation of the current and prospective profitability, liquidity and financial stability of Outdoor Equipment Ltd. Methods of analysis include trend, horizontal and vertical analyses as well as ratios such as Debt, Current and Quick ratios. Other calculations include rates of return on Shareholders Equity and Total Assets and earnings per share to name a few. All calculations can be found in the appendices. Results of data analyzed show that all ratios are below industry averages. In particular, comparative performance is poor in the areas of profit margins, liquidity, credit control, and inventory management.

The report finds the prospects of the company in its current position are not positive. The major areas of weakness require further investigation and remedial action by management.

Recommendations discussed include:
- improving the average collection period for accounts receivable;
- improving/increasing inventory turnover;
- reducing prepayments and perhaps increasing inventory levels

The report also investigates the fact that the analysis conducted has limitations. Some of the limitations include: forecasting figures are not provided, nature and type of company is not known, nor the current economic conditions.
Abstract Examples by Discipline

Sample abstracts from different fields – University of Wisconsin
Abstract Examples – Humanities

- "The Commemoration and Memorialization of the American Revolution”
- Benjamin Herman and Jean Lee (Mentor), History

This project involves discovering how the American Revolution was remembered during the nineteenth century. The goal is to show that the American Revolution was memorialized by the actions of the United States government during the 1800s. This has been done by examining events such as the Supreme Court cases of John Marshall and the Nullification Crisis. Upon examination of these events, it becomes clear that John Marshall and John Calhoun (creator of the Doctrine of Nullification) attempted to use the American Revolution to bolster their claims by citing speeches from Founding Fathers. Through showing that the American Revolution lives on in memory, this research highlights the importance of the revolution in shaping the actions of the United States government.
“Subtype of Autism: Developmental Verbal Dyspraxia”

Amanda Babin and Morton Gernbascher (Mentor), Psychology

The purpose of this research is to identify a subtype of autism called Developmental Verbal Dyspraxia (DVD). DVD is a motor-speech problem, disabling oral-motor movements needed for speaking. The first phase of the project involves a screening interview where we identify DVD and Non-DVD kids. We also use home videos to validate answers on the screening interview. The final phase involves home visits where we use several assessments to confirm the child’s diagnosis and examine the connection between manual and oral motor challenges. By identifying DVD as a subtype of Autism, we will eliminate the assumption that all Autistics have the same characteristics. This will allow for more individual consideration of Autistic people and may direct future research on the genetic factors in autism.
Abstract Examples – Hard Sciences

- "The Genetics of Bone Strength in Mice"
- Jonathan Vu and Robert Blank (Mentor), Endocrinology

The purpose of this study is to identify relationships between the physical and genetic characteristics of bones in mice. The physical characteristics include size, density, and the force required to break the bone, while the genetic ones are the genes of the marker loci associated with the genes that affect these qualities. This study uses strains of mice with reduced genetic variation. The two strains of mice that are the most phenotypically extreme, meaning those with the strongest and weakest bones, are crossed. The F2 generation from that cross is then analyzed. The results of this analysis can be used to find which genotypes correlate with specific bone properties like size, density, and failure load. The anticipated outcome of this lab is the identification of the genotypes that affect bone strength in mice. The findings may be useful in treating medical conditions that are related to bone strength.
Abstract Examples – Visual and Performing Arts

- “Blind Construction: Mixed Media”

- Diana Dewi, Jennifer Kittleson, and Wendy Hagedorn (Mentor), Apparel and Textile Design

The basis of this project was to create a garment using mixed media in order to mimic the human body. The materials we used to create this piece include: buckram, copper wire, spray paint, fabric paint, a variety of novelty fabrics, and chains. The techniques we created in order to manipulate the piece include: fabric branding and burning, grid painting, sewing, draping, molding buckram, and coiling. Our overall approach was to create a theatrical wearable art piece. Upon completion of the assignment we found the piece aesthetically pleasing because of the way it molds to the human body, but can be a piece all on its own.
The Informative Abstract

Components of an informative abstract and steps for its preparation
## Components of an informative *abstract*

| **Introduction** | • **What is known about the topic?** Write 1-3 sentences that explain the research topic, background, and research question(s). |
| **Purpose** | • **Why is the topic relevant?** Ideally in one sentence, state the primary objectives and scope of the study or the reasons why the research was conducted. |
| **Methods** | • **How was it done?** Clearly state the techniques or approaches used in the study. |
| **Results** | • **What was discovered?** Describe the results, data, and observations informatively and concisely. The results may be experimental or theoretical. Give priority to new findings. Mention any limits to the accuracy or reliability of the results. |
| **Conclusions** | • **What do the findings mean?** Explain the implications of the results, why they are important and how do they relate to the purpose of the investigation. Include recommendations, suggestions and both rejected and accepted hypotheses. |
What are the steps for preparing an informative *abstract*?

1. **Read** through the final document completely to get an **idea** of its **content**.
2. **Re-read** the material as often as is necessary to locate all the **main points**.
3. Pay special attention to the **first** and **last sentences** of each **paragraph** (the first usually identifies the **topic** and the last usually **summarizes** the paragraph).
4. Look for these types of key words to **identify** the **main points**:
   - Words that **enumerate** (first, second, third; next; initially, finally).
   - Words that express **causation** (thus, as a result, because, therefore).
   - Words that express **contrasts and comparisons** (however, although, despite, furthermore, in addition, likewise).
What are the steps for preparing an informative *abstract*?

5. **Organize** the information into an **initial rough draft**. At this point the draft will contain more information that will appear in the final version.

6. **Read** the rough draft.

7. **Condense** or **eliminate main points**, if possible, making sure to maintain the emphasis of the original.

8. **Paraphrase/rephrase** the edited version, eliminating wordiness. Once again, compare this version with the original to **double-check facts**.

9. **Do not** include remarks that repeatedly **call attention** to the fact that you are **writing a summary** (e.g. “On page 2 of the article, the author …”).
Abstract

- This paper presents and assesses a framework for an engineering capstone design program. We explain how student preparation, project selection, and instructor mentorship are the three key elements that must be addressed before the capstone experience is ready for the students. Next, we describe a way to administer and execute the capstone design experience including design workshops and lead engineers. We describe the importance in assessing the capstone design experience and report recent assessment results of our framework. We comment specifically on what students thought were the most important aspects of their experience in engineering capstone design and provide quantitative insight into what parts of the framework are most important.
How can this abstract be edited/changed so it is well written?

Abstract

- This paper presents and assesses a framework for an engineering capstone design program. We explain how student preparation, project selection, and instructor mentorship are the three key elements that must be addressed before the capstone experience is ready for the students. Next, we describe a way to administer and execute the capstone design experience including design workshops and lead engineers. We describe the importance in assessing the capstone design experience and report recent assessment results of our framework. We comment specifically on what students thought were the most important aspects of their experience in engineering capstone design and provide quantitative insight into what parts of the framework are most important.
How can this abstract be edited/changed so it is well written?

Critique

- This abstract begins well with a concise statement of the objectives of the paper, but then wanders from good technical writing style from there.

- The abstract is written in the first person (e.g. “We explain...”, “We discuss...”, “We comment...”, etc.).

- No results are presented. This poorly written abstract describes only the organization of the paper.

- Instead of “We comment on what students thought were the most important aspects of their experience...”, the abstract should summarize the actual results and how they were obtained.

  Example: “A statistical analysis was performed on answers to survey questions posed to students enrolled in a capstone design course at Georgia Tech. The analysis showed that students thought the most important aspects of their experience in engineering capstone design were quality of the instructor and quantity of student/instructor interaction time.”
References


- Andrade C. How to write a good abstract for a scientific paper or conference presentation. Indian J Psychiatry 2011;53:172-5


- www.indiana.edu/~wts/

- https://www.elsevier.com/authors/journal-authors/graphical-abstract

Any Questions??
Thank You!
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