



Organização: Pró-Reitoria de Pesquisa - USP



Capacitação em Escrita Científica

Módulo 5

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Módulo 1: O Gênero Literário

Seções de Um Artigo Científico

Módulo 2: Estrutura 1: *Abstract*

Módulo 3: Estrutura 2: *Introduction*

Módulo 4: Estrutura 3: *Results and Discussion, Conclusion*

Módulo 5: Estilo

Linguagem 1: Especificidade, Complexidade e Ambiguidade

Módulo 6: Linguagem 2: Redundâncias, Ação no Verbo, Fluidez de Texto, Ritmo de Escrita

Módulo 7: Linguagem 3: *Plain English*, Escrever em Inglês, Preposições

Módulo 8: Linguagem 4: *Topic Sentences, Cover Letters, Final Remarks*

Módulo 5

- Estilo

- Linguagem 1:

Especificidade, Complexidade e Ambiguidade

Scientific Writing Style

Define the abbreviation in parentheses the first time you use it:

Voluntary Interindustry Commerce Solutions
(VICS)

Use Abbreviations / acronyms with discretion

Ex: Use of combined CTPR and BTR3 increased the KMDN stock values in B2B companies

??????

U.S. citizens;
U.K. football team
(Adjectives)

or

“The citizens from United States....”
“The football team of United Kingdom....”
(nouns)

Units of measure are abbreviated : **2 mm.**; **10 min.**

In a non-measurable context: "we measured length in millimeters"

OBS: Never add an "s" to the measure unit.

Latin abbreviations:

- *i.e.*, *id est* (that is),
- *e.g.*, *exempli gratia* (for example),
- *etc.* (so on),
- *vs* (versus),
- *et al.*, *et alli*, and others,
- *via* (road),
- *in situ* (in a place)

A good reference material may be found at:

The *ACS Style Guide*, *Dodd, J. S.*, Ed;
American Chemical Society, Washington, DC, 2006

Use a space between the number and the unit:

6 min, 0.3 g, 80 mL, etc.

Exception: %, \$ and °

50%, \$400, 180° (Obs: 90 °C, 180 °F).

You are reporting a work that has been completed !!

Use **past tense** for sentences concerning your findings.

This study **was** aimed at investigating.. (**The study**)



Present forms preferable in
Conclusion Section

Present and even Future Tenses may be used!!

Passive voice **almost** always requires more words than
Active voice:

ACTIVE: “the melting processing *consumed* polymeric material at a higher rate..” (10 words)

PASSIVE: “Polymeric material *was consumed* by the melting process at a higher rate..” (12 words)

Mathews, JR and Mathews RW, *Successful Scientific Writing*, Cambridge University Press; 3 edition 2007)

Dodd, J. S., Ed. *The ACS Style Guide*; American Chemical Society: Washington, DC, 1986.).

ACTIVE VOICE: Focus on the Actor:

“The student wrote a report”

PASSIVE VOICE: Focus on the Object

“A report was written by the student”

Be careful with the use of passive forms:

“Companies were ranked by the authors based upon their revenue”

??????

“Companies were ranked based upon their revenue”

Better: Agentless Passive form

Passive	Active
It might be expected that this treatment would be effective.	
Inoculation was performed on 25 chickens by Jones and Colleagues	
A collecting trip was made by this author for the purpose of collecting Lepidoptera	
Passages A and B should be marked for revision	
Three incineration systems are being studied by administrative personnel	

Mathews, JR and Mathews RW, *Successful Scientific Writing*, Cambridge University Press; 3 edition 2007)

Dodd, J. S., Ed. *The ACS Style Guide*; American Chemical Society: Washington, DC, 1986.).

Third person constructions has been preferred in life sciences papers.

Sometimes first person may be used to emphasize important information

Our research group has investigated....
We have demonstrated that....

For Business, Accounting and Economic Sciences:

We examine the link between increases in housing wealth, financial wealth, and consumer spending. We rely upon a panel of 14 countries observed annually for various periods during the past 25 years and a panel of U.S. states observed quarterly during the 1980s and 1990s. We impute the aggregate value of owner-occupied housing, the value of financial assets, and measures of aggregate consumption for each of the geographic units over time. We estimate regression models in levels, first differences and in error-correction form, relating consumption to income and wealth measures. We find a statistically significant and rather large effect of housing wealth upon household consumption.

CASE, QUIGLEY and ROBERT J. SHILLER, Advances in Macroeconomics, 5, 2005 1

Risk Pricing over Alternative Investment Horizons

I explore methods that characterize model-based valuation of stochastically growing cash flows. Following previous research, I use stochastic discount factors as a convenient device to depict asset values. I extend that literature by focusing on the impact of compounding these discount factors over alternative investment horizons. In modeling cash flows, I also incorporate stochastic growth factors. I explore dynamic value decomposition (DVD) methods that capture concurrent compounding of a stochastic growth and discount factors in determining risk-adjusted values. These methods are supported by factorizations that extract martingale components of stochastic growth and discount factors. These components reveal which ingredients of a model have long-term implications for valuation. The resulting martingales imply convenient changes in measure that are distinct from those used in mathematical finance, and they provide the foundations for analyzing model-based implications for the term structure of risk prices. As an illustration of the methods, I re-examine some recent preference based models. I also use the martingale extraction to revisit the value implications of some benchmark models with market restrictions and heterogenous consumers..

Lars Peter Hansen, Handbook of the Economics of Finance, 2(B): 1571-1611, 2013



Recursive utility in a Markov environment with stochastic growth

Recursive utility models of the type introduced by Kreps and Porteus (1978) are used extensively in applied research in macroeconomics and asset pricing in environments with uncertainty. These models represent preferences as the solution to a nonlinear forward-looking difference equation with a terminal condition. Such preferences feature investor concerns about the intertemporal composition of risk. In this paper we study infinite horizon specifications of this difference equation in the context of a Markov environment. We establish a connection between the solution to this equation and to an arguably simpler Perron-Frobenius eigenvalue equation of the type that occurs in the study of large deviations for Markov processes. By exploiting this connection, we establish existence and uniqueness results. Moreover, we explore a substantive link between large deviation bounds for tail events for stochastic consumption growth and preferences induced by recursive utility.

Lars Peter Hansen and J. Scheinkman, *Proceedings of the National Academy of Sciences*, 109(30): 11967-72, July, 2012



First vs Third Person

This paper broadens the scope of evaluating the design of economic mechanisms that is traditionally done solely from an economic perspective. We introduce and demonstrate the application of acceptability to evaluate complex economic mechanisms. In particular, we apply our approach to the evaluation of continuous combinatorial auctions, which represent a complex, sophisticated market mechanism that has not been generally available in the online marketplace but has the potential to enhance the economic efficiency of trade for assets with interdependent values. [.....]. Based on prior research and an analysis of the auction tasks, we discuss practical and innovative information feedback schemes for reducing the cognitive burden of formulating bids in combinatorial auctions. Then, we use constructs from the technology acceptance model (TAM) – which have been consistently shown to be key determinants of technology acceptance in the extant literature – to compare the acceptability of the mechanism under three different information regimes. In addition, we borrow constructs from marketing theory to assess the potential growth in adoption of the mechanism. We compare user perceptions of the three alternative designs in a laboratory experiment with over 130 subjects. Our study constitutes a complementary and novel approach in evaluating the design of complex economic mechanisms.....

Journal of Operations Management 31 (2013) 489–503

We performed post-hoc analysis to determine the extent to which each dimension of transformational leadership would independently impact trust in the organization. Thus, we analyzed four different models using AMOS 16, each including a single dimension (core, performance, individualized support and intellectual stimulation) of transformational leadership. Although we ran these models for each scenario, given the consistency of our findings we only report those for scenario one (see Table III).

Journal of Business & Industrial Marketing, 28/7 (2013) 535–546

Avoid	Better
nowadays	presently, currently
on the contrary	in contrast
(up) until now	to date

Language I

The efficient writing is specific

“Novel financial models have been proposed to overcome the limitations regarding market prediction.”

Too general!!

What were the models?
What are the limitations?
What is the market?

“Stochastic models have been proposed to overcome the uncertainty exhibited by conventional models for stock market prediction.”

Better !!

Possible ways of emphasizing details:

Repetition, wording, illustration and placement

Source: Michael Alley *The Craft of Scientific Writing*, 3rd edition
(Springer-Verlag, 1996).

1. Repetition

Title, abstract, discussion and conclusions ??

2. Wording

Stress the most important details in a sentence!!

Ex: High levels of the protein were found in the blood samples from patients with hemorrhagic infections.

What is the most important detail?

The protein, the levels or the infection?

Unexpected high levels of a protein were found in the blood samples from patients with hemorrhagic infections.

High levels of a very specific S100 family protein were found in the blood samples from patients with hemorrhagic infections.

High levels of a specific protein were found in the blood samples from examined patients. This may be the cause of the hemorrhagic infection.

Avoid stacking of adjectives

Maracanã is a famous brazilian monumental round-shaped 80 thousand-people capacity modern football stadium.

Urghhhh!

Adapted from: Michael Alley *The Craft of Scientific Writing*, 3rd edition (Springer-Verlag, 1996).

Maracanã is the most famous football stadium in Brazil. Its round-shaped design is able to accommodate 80 thousand-people.

A huge problem: **Long Sentences**

The mechanical analyses had been carried out using stress-strain measurements and indicated that the copper-based alloys are more resistant than the silver-based ones, which may be due to the fabrication process used for each composite material, since the copper alloys had been produced via casting, whereas the silver composites had been fabricated via reactive extrusion under high pressures, controlled atmosphere, and at temperatures ranging from 300 – 400 °C.

?????????

Too long!, Too wordy!

Too many ideas in a single sentence!!

Streamlining it:

First half of the sentence:

The mechanical analyses had been carried out
using.....

Second part :

.....

A new methodology for protein purification is presented. Isolation techniques using HPLC are discussed. The amount of protein purified in each cycle is revealed.

This study describes a new methodology for protein purification using novel techniques based on HPLC experiments. Each purification cycle provided a total amount of 1.2 mg of protein.

Better!!

Active voice is straightforward

Words/phrases with more than one meaning



Chickens are ready to eat

????

Word Choice:

Be careful with:

as, only

Word Choice:

“Production costs increased as the companies reduced technical training”

????

The word “as” may be interpreted as “because” or “while”

“Production costs increased because the companies reduced technical training”

Better

“ In low water temperatures and high toxicity levels of oil, we tested how well the microorganisms survived”

Better: “We tested how well the microorganisms survived in low water temperatures and high toxicity levels of oil”

Extracted from: Michael Alley *The Craft of Scientific Writing*,
3rd edition (Springer-Verlag, 1996).

“The train left the station crowded and dirty.”

Better: “The train was crowded and dirty when it left the station”

www.1-language.com/eslquizzes/ambiguoussentences.htm

Unclear Pronoun

Since the platform has a support system connected to the equipment, *it* was mounted inside the lab.

What was mounted inside the lab????

It = The platform or the support system??

An interesting example:

If you receive an e-mail titled "Win A Holiday," do *not* open it. It will erase everything on your hard drive. Forward **this** e-mail out to as many people as you can. **This** is a very malicious virus and not many people know about it.

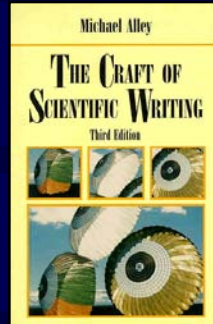
Which e-mail??

??

Exercises at:

<http://www.writing.engr.psu.edu/handbook/exercises/exercise4.html>

- Michael Alley. *The Craft of Scientific Writing*, 3rd edition (Springer-Verlag, 1996).



Mathews, JR and Mathews RW, *Successful Scientific Writing*, Cambridge University Press; 3 edition 2007)

Dodd, J. S., Ed. *The ACS Style Guide*; American Chemical Society: Washington, DC, 1986.).

Brawand et al., *Nature*, 2011, 478, 343

Urselmann, et al., *IEEE Transactions on Evolutionary Computation*, 15, 2011, 659

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www.twitter.com/escreverartigos

www.twitter.com/writingpapers

