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dortmund

How to Write an Introduction to a Data-Driven Study

Existing Models

There are two working models for writing introductions: John Swales's CARS model and John W. Creswell's deficiencies model. The author of *Writing Science* Joshua Schimel offers another helpful tool for thinking about the key elements of your research – a message box. Go to the references for the information on these sources.

We've created our own set of rhetorical moves by borrowing from the message box, the CARS model, and the deficiencies model. This is an example of how one can build their own set of rhetorical moves congruent with research design, genre of the article, and the journal.

Abstract	
Introduction: Problem Statement Note: Determine whether the literature review needs to be integrated with the introductory remarks, it needs to be a separate section, or both.	
Rhetorical Move	**Example**
Broad problem (taken from the message box) Frame the problem broadly in one or two crisp sentences.	"The Arctic has become a focus of attention because global warming is expected to be most severe at extreme latitudes…" (Schimel, 2012). "Student loan debt has now topped $1.3 trillion and the Congressional Budget Office estimates the amount borrowed will double by 2025 (Bloomberg Business, 2015)" (Webber & Taylor, 2015).
Modulate this broad problem to the specific, narrow issue you want to address in your study (taken from the message box). At this point, you may need to define your key terms.	Specific issue: the interaction between soil C and N cycling (Schimel, 2012). "While the majority of student debt is concentrated at the undergraduate level, borrowing for graduate and professional education is at a record high and increasing rapidly. The accumulated debt for 2012 private law school graduates was over $120,000, and just under $85,000 for those from a public law school (Access Group, 2015)" (Webber & Taylor, 2015).

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Answer the So What? (taken from the message box).	"The rising tide in graduate student debt may discourage many from pursuing an advanced degree, possibly restricting their human capital and contributions to the economy and knowledge production" (Webber & Taylor, 2015).
Briefly introduce the solution your study proposes (taken from the message box).	"This study proposes the use of national-level data from the 2008 and 2012 National Postsecondary Student Aid Study (NPSAS) to examine contributing factors to graduate and professional student debt and to compare levels in 2012 and 2008" (Webber & Taylor, 2015).
Optional (use Swales's model): Describe your research space by naming **groups** of studies, find a niche, and occupy the niche.	A niche: "Compared to that for undergraduate students, relatively few studies have focused on factors that contribute to graduate student debt" (Webber & Taylor, 2015).
Rationale/the underlying reason for research: Who benefits and how? (message box + Creswell)	"As an understudied topic, a better understanding of graduate student debt is of national importance because knowledge production and economic gains are deeply affected by graduate student education…" (Webber & Taylor, 2015).
Research questions (RQ) /purpose (RP)/ hypothesis (H) See Creswell, John W. Research design: Qualitative, quantitative, and mixed methods approaches.	*RQ*: Among adults, is there a relationship between free-floating anxiety and success in quitting smoking? (three variables) *RP*: The purpose is to explore the relationship between free-floating anxiety and success in quitting smoking (two variables). *H to predict the nature of the relationship*: Adults who have more free-floating anxiety will be less successful in their attempts to quit smoking than those with less anxiety (Newhart & Patten, 2023).

References

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Introduction. Research Guides. USC Libraries, https://libguides.usc.edu/writingguide/CARS

Newhart, M., & Patten, M. L. (2023). *Understanding research methods: An overview of the Essentials*. Routledge.

Schimel, J. (2012). *Writing science: How to write papers that get cited and proposals that get funded*. Oxford University Press.

Webber, K., & Taylor, T. (2015). Grant proposal "The Rising Tide of Graduate Student Debt: Examining Change From 2008 to 2012" to the Association for Institutional Research.

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