

MCCP7020

Sessions 2 Research Article (RA) Format across Disciplines and RA Abstracts

Language Centre
Hong Kong Baptist University

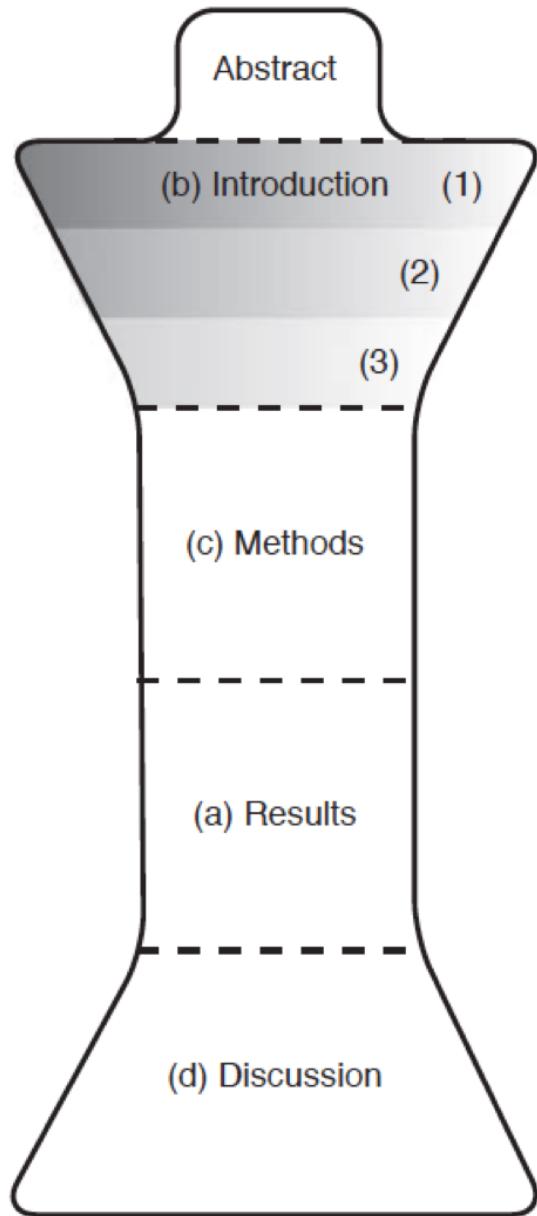
In this part

1. You will discuss the format of research articles (RAs) in different disciplines.
2. You will study the structural and linguistic features of different sections of a research article (RA)
 - Abstract
3. You will learn to compile a corpus of your own for future writing

Format of RAs in different disciplines

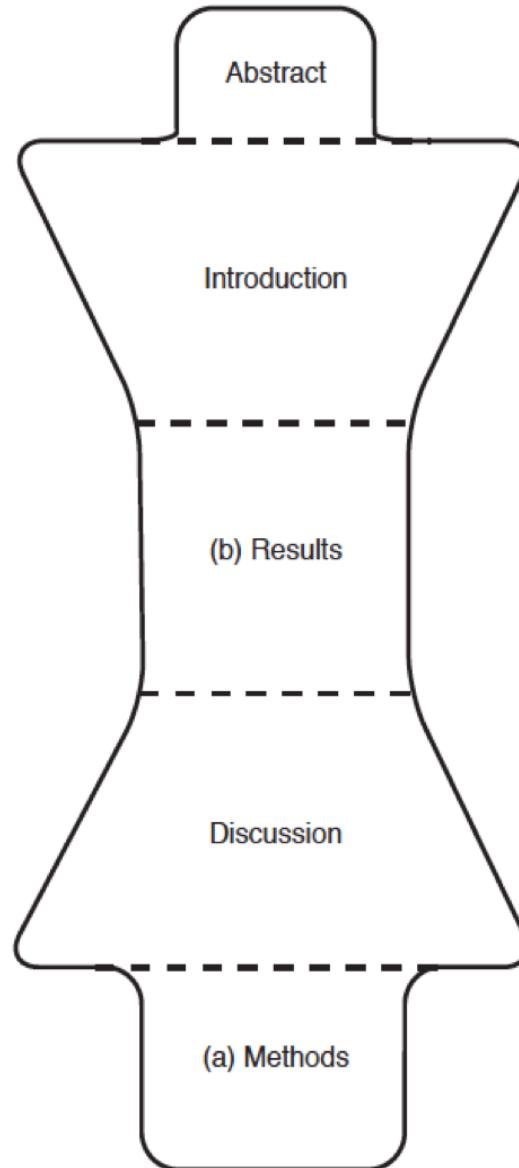
Activity: Understanding the RA structure across disciplines

1. Form a group of 2-3 students and a look at the three different types of article structure in the Google Doc ([Weblink 1](#)).
2. Compare them with the 10 RAs you downloaded. Do any of the structure type match that of the 10 RAs?
If none of the following types match the format of the RAs in your field, write down the major sections of the RA in your research field.
3. Share your findings with your group mates



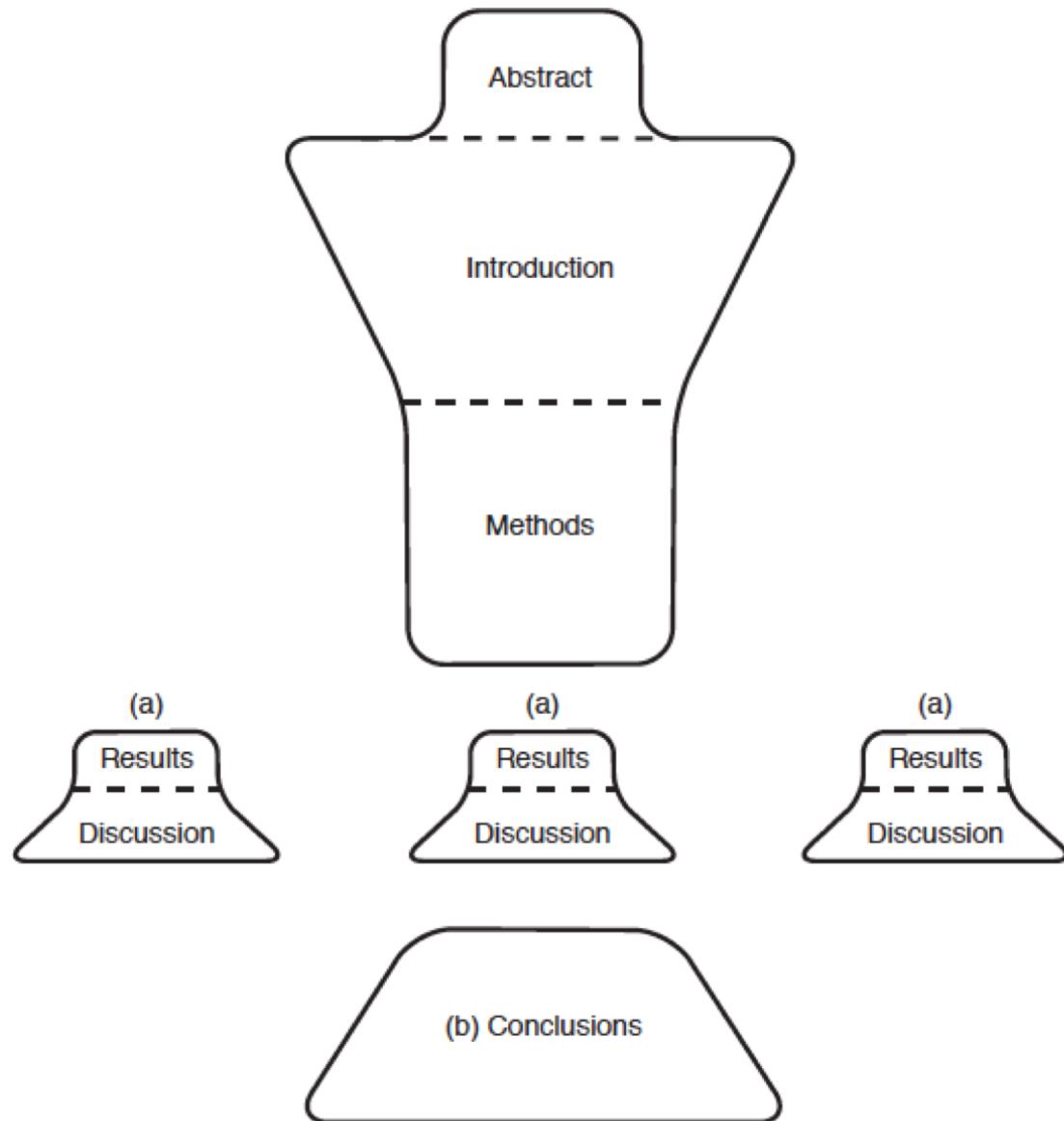
Article structure type 1

- (a) The whole structure is governed by the Results box; everything in the article must relate to and be connected with the data and analysis presented in the Results section.
- (b) (1) The Introduction begins with a broad focus. The starting point you select for your Introduction should be one that attracts the lively interest of the audience you are aiming to address: the international readers of your target journal.
- (3) The Introduction ends with a focus exactly parallel to that of the Results; often this is a statement of the aim or purpose of the work presented in the paper, or its principal findings or activity.
- (2) Between these two points, background information and previous work are woven together to logically connect the relevant problem with the approach taken in the work to be presented to address the problem.
- (c) The Methods section, or its equivalent, establishes credibility for the Results by showing how they were obtained.
- (d) The Discussion begins with the same breadth of focus as the Results – but it ends at the same breadth as the starting point of the Introduction. By the end, the paper is addressing the broader issues that you raised at the start, to show how your work is important in the ‘bigger picture.’



Article structure type 2

- (a) The Methods section, often renamed Procedure or Experimental, is presented after the Discussion, sometimes in a smaller type face than the rest of the paper.
- (b) This change means that more details may need to be given in the Results section to explain how the results were obtained.



- (a) The Results and Discussion are presented together in a single combined section; each result is presented, followed immediately by the relevant discussion.
- (b) This change means that a separate section is needed at the end to bring the different pieces of discussion together; it is often headed Conclusions.

Article structure type 3

Empirical RAs in 39 disciplines

I – Introduction

L – Literature Review
 (Theoretical Framework/Rationale,
 Previous Research)

M – Mythology
 (Research/Empirical Design)

R – Results

D – Discussion

[RD] – R & D combined

C – Conclusion

Discipline	Structure	Discipline	Structure
Applied Linguistics/ELT	ILMRDC	Geography	ILM[RD]C
Theoretical Linguistics	IMRD ILMRDC	Applied Biology and Chemical Technology	IMRD IMRDC IRDCM
Education	IMRD ILM[RD]C ILMRD	Applied Mathematics	None
Applied Social Science	ILMRD IM[RD]C	History	None
Sociology	ILMRD	Literature	None
		Philosophy	None

Structural and linguistic features of RA abstracts

Pre-activity discussion:

Form a group of 2-3 students and discuss the following questions.

- 1) Why is the abstract necessary for academic journals?
- 2) What is the usual word limit for an abstract?
- 3) What kind of information do you think should be included in an abstract?
- 4) Is there a structure for RA abstracts?

RA abstracts:

Research findings: researchers' decision on reading RAs

- 1) Scholars only read 1/10 of the articles, the titles of which they have scanned.
- 2) They only read about 1/2 of the articles, the abstracts of which they have read.

Abstracts:

- Research paper writing: **persuasion**
- **Promoting you** and **your paper**
- Conferences, special issues: abstract first

Activity: Analysing the move structure of example abstracts

- 1) Go to the Google Doc using Weblink 2 in the email.
- 2) Read one of the example abstracts
- 3) Discuss with the students next to you.

Why did I make the first few words of each sentence **bold**?

By just looking at the **bolded phrases**, can you tell what kind of information is given in each sentence?

Why did I make certain phrases *italic*?

The move structure of RA abstracts:

RA abstracts often follows the conventional IMRaD RA structure:

- **Move 1: Introduction: Why did you start?**

Explain the topic of the paper, relevant literature and current practice, and the purpose/aim of the current study.

- **Move 2: Methods: What did you do?**

Describe the research design, methods of data collection, etc.

- **Move 3: Results: What did you find?**

Present the MOST important findings and outcomes.

- **Move 4: Discussion/Conclusion: What does it mean?**

Point out implications of the findings for future policy or practice.

The move structure of RA abstracts (cont'd)

Move structure of RA abstracts (Hyland, 2000) - 800 abstracts (8 disciplines)

(1) Introduction (55%) Establishes context of the paper and motivates the research

World Context; Research Context; Significance of Topic

(2) Purpose Indicates purpose, outlines the aim behind the paper

Description of Objectives; Research Questions

(3) Method Provides information on design, procedures, data analysis, etc.

Data Collection; Data Analysis

(4) Product States main findings or results, arguments

(5) Conclusion (opt. 22%) Points to application, or wider implications & interpretation

Study Contribution; Implications; Research Directions; Limitations

An example

This experiment tests the effect of choke type and gun selection on target accuracy in order to determine the best gun specifications [Describe the purpose of the research] Three competent shooters of approximately equivalent marksmanship abilities tested three different choke types (full, modified, and improved) and two different guns (a Remington 11-87 semi-automatic and a Beretta 682 Gold E). [Describe the research design, methods of collecting data, etc.] With a confidence level of 95%, the gun selection ended up to be the only significant factor. The Beretta was found more accurate than the Remington possibly because the Beretta's weight is centered in the middle of the gun while the Remington is a little barrel-heavy. However, if the confidence level is lowered to 90%, choke type is also significant, with the improved choke more accurate than the modified or full. [Present the most important findings] Thus, for target shooting, the most accurate combination would be the Beretta with an improved choke. [Point out implications of the findings] ¶

Hyland (2000):

Common abstract structures across disciplines:

Philosophy	I-P-Pr	P-Pr			
Sociology	P-M-Pr	I-P-Pr	I-P-M-Pr		
Applied Linguistics	I-P-Pr	P-M-Pr	P-Pr	I-P-M-Pr	
Electronic Eng.	P-M-Pr	P-Pr			
Mechanical Eng.	P-M-Pr	P-Pr	I-P-Pr		
Physics	P-M-Pr	P-Pr			
Biology	P-M-Pr	I-P-M-Pr/I-P-Pr/P-Pr			

I = Introduction
P = Purpose
M = Method
Pr = Product
 (findings)
C = Conclusion

Hartley & Betts (2009): Common weaknesses in abstracts in the social sciences

100 abstracts:

- Only 56% provide info. On the background of the study
- Only 58% report participants' age
- 36% report the number of participants
- 12% report participants' sex
- 27% report where the study was carried out

	Yes / No / N.A.	Information score (see text)
Background	—	3
Aim(s)	—	3
Method	—	3
Participants N	—	1
M/F	—	1
Age	—	1
Place/country of study	—	2
Results/Findings	—	3
Conclusions/	—	3
Implications		
	Total 20	

In some disciplines (e.g. medicine)

Structured abstracts:

Background. Action research involves a constant cycle of planning, action, reflection and review. Such an approach has frequently been used to improve the teaching and learning of students.

Aim. To describe the development of a course in a British university on facilities estate management, using the methods of action research.

Method. 22 part-time mature adult work-based learners (14 M and 8 F, average age 35 yrs) completed individual and group interviews, focus groups, diaries and logs throughout this two-year longitudinal study.

Results. The study identified tensions for the students between individual anticipation and anxiety, and between positive conceptions of a supportive learning community and negative ones of higher education as an alien environment that actually hampered learning.

Conclusions. The findings allowed the authors to improve their practice, and both the staff and the students to improve their engagement with and awareness of the learning process.

Suggestion given by Hartley & Betts (2009):

First write a structure abstract, then remove the headings to make it one-paragraph

145 words

Information score: 20 (out of 20)

Activity: Analysing the linguistic features of RA abstracts

- 1) Now look at the example abstracts in Weblink 2 again.
- 2) Discuss with the students next to you.

What kind of phrases or sentence patterns are typical for each move?

- Introduction
- Purpose
- Method
- Product/Results

An example

This experiment **tests** the effect of choke type and gun selection on target accuracy **in order to** determine *the best* gun specifications. Three competent shooters of *approximately equivalent* marksmanship abilities **tested** three different choke types (full, modified, and improved) and two different guns (a Remington 11-87 semi-automatic and a Beretta 682 Gold E). With a confidence level of 95%, the gun selection ended up to be the only significant factor. The Beretta **was found more accurate than** the Remington possibly **because** the Beretta's weight **is centered** in the middle of the gun **while** the Remington **is a little** barrel-heavy. **However**, if the confidence level **is lowered** to 90%, choke type **is also significant**, **with** the improved choke **being more accurate** than the modified or full. **Thus**, for target shooting, the most accurate combination **would be** the Beretta **with** an *improved choke*.

Activity: Analysing the linguistic features of an abstract: Summary

1. A typical **noun phrase** to start describing the research objective/aim:
the experiment, this study, this paper
You can also use other things such as a pronoun (*we*) or prepositional phrases (*in this paper, ...*)
2. Frequent use of **adjectives/modifiers** to describe the research accurately:
the best, approximately equivalent, most accurate, also significant, etc
3. Different **verb tenses** for different purposes:
present tense (*the experiment tests*): research objective
past tense (*tested 3 different choke types*): method
present + past tenses (*ended up, was found, is centred, is lowered*): results
4. **Passive + active voices** to diversify the language:
ended up, was found, is centred, is lowered
5. **Connectives** to achieve better coherence and cohesion:
because, while, however, thus, etc.
6. **Modal verbs** to soften the tone:
would be
7. **Prepositional phrases** instead of relative clauses to add more information
with the improved choke being more accurate, with an improved choke

RA abstracts:

Another example

Have a look at the last example in the Google Doc of Weblink 2. Do you think this abstract is well written?

We examine whether conservative white males are more likely than are other adults in the U.S. general public to endorse climate change denial. We draw theoretical and analytical guidance from the identity protective cognition thesis explaining the white male effect and from recent political psychology scholarship documenting the heightened system-justification tendencies of political conservatives. We utilize public opinion data from ten Gallup surveys from 2001 to 2010, focusing specifically on five indicators of climate change denial. We find that conservative white males are significantly more likely than are other Americans to endorse denialist views on all five items, and that these differences are even greater for those conservative white males who self-report understanding global warming very well. Furthermore, the results of our multivariate logistic regression models reveal that the conservative white male effect remains significant when controlling for the direct effects of political ideology, race, and gender as well as the effects of nine control variables. We thus conclude that the unique views of conservative white males contribute significantly to the high level of climate change denial in the United States.

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Activity: Analysing the move structure and the linguistic features of an RA abstract **in your own field**

- 1) Download one or two RAs that you think are well-written in your own field. You can use RAs from the 10 you submitted.
- 2) Open Weblink 4 and find your name in the Google Doc.
- 3) Following the steps that you have been through with the Example Abstracts, highlight different parts of the abstract and identify the moves used in each part.
If you find any part in your abstract that does not match any of the moves given in the IMRaD or the IPMPrC model, write down the function you think this part fulfils.
- 4) Then, identify typical words/phrases and grammatical patterns that are used in the abstract. Pay attention to the moves/steps these words/phrases and grammatical pattern fulfil.

Activity 2-5 Reflection on language re-use

Form a group of 2-3 students and discuss the following questions.

- 1) Before this course, did you notice any of the move-structure or linguistic features of RA abstracts we have discussed?
- 2) Which usages (e.g. phrases, sentence patterns) do you think you will use in your writing?