Lecture Objectives

- General Statistics
- Introduction Section
- Methods
- Results
- Discussion
- Acknowledgement
- All content is sourced from 'Academic writing for graduate students, John M. Swales

General Statistics

"Collaboration"	Introduction	Methods	Results	Discussion
Present tense	high	low	low	high
Past tense	mid	high	high	mid
Passive voice	low	high	variable	variable
Citations	high	low	variable	high
Qualifications	mid	low	mid	high
Commentary	high	low	variable	high

General Statistics

Rank	Item	Total occurrence	
1	however	62	
2	first, second, etc.	52	
3	thus	33	
4	also	30	
5	for example	29	
6	in addition	20	
7	finally	19	
8	therefore	16	
9	on the other hand	14	
10	then	12	
11	nevertheless for instance furthermore	11	

Introduction Section: Outline

Establishing a research territory

- a. by showing that the general research area is important, central, interesting, problematic, or relevant in some way (optional)
- b. by introducing and reviewing items of previous research in the area (obligatory)

Establishing a nichea

a. by indicating a gap in the previous research, or by extending previous knowledge in some way (obligatory)

Occupying the niche

- a. by outlining purposes or stating the nature of the present research (obligatory)
- b. by listing research questions or hypotheses (PISFb)
- c. by announcing principal findings (PISF)
- d. by stating the value of the present research (PISF)
- e. by indicating the structure of the RP (PISF)

Introduction Section: Literature

```
Here are some further "skeletal" examples of these strong opening
statements. Notice how many of them use the present perfect.
        Recently, there has been growing interest in . . .
        The possibility of . . . has generated wide interest in . . .
        The development of . . . is a classic problem in . . .
        The development of . . . has led to the hope that . . .
        The . . . has become a favorite topic for analysis . . .
        Knowledge of . . . has a great importance for . . .
```

Introduction Section: Literature

```
The study of . . . has become an important aspect
of . . .
A central issue in . . . is . . .
(The) . . . has been extensively studied in recent years.
Many investigators have recently turned to . . .
The relationship between . . . and . . . has been
investigated by many researchers.
Many recent studies have focused on . . .
```

Introduction Section: Tenses

I. Past—researcher activity as agent

Jones (1997) investigated the causes of illiteracy.

The causes of illiteracy were investigated by Jones (1997).

II. Present Perfect—researcher activity not as agent

The causes of illiteracy have been widely investigated (Jones 1977, Ferrara 2000, Hyon 2004).

There have been several investigations into the causes of illiteracy (Jones 1997, Ferrara 2000, Hyon 2004).

Several researchers have studied the causes of illiteracy 1-3.

Introduction Section: Tenses

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III. Present—no reference to researcher activity
```

The causes of illiteracy are complex (Jones 1997, Ferrara 2000, Hyon 2004).

Illiteracy appears to have a complex set of causes 1-3.

Note these common uses of these patterns:

Pattern I—reference to single studies—past

Pattern II—reference to areas of inquiry—present perfect

Pattern III—reference to state of current knowledge—present

```
Little | few
Uncountable
                    However, little information . . .
                    little attention . . .
                    little work ...
                    little data . . .
                    little research . . .
Countable
                    However, few studies . . .
                    few investigations ....
                    few researchers...
                    few attempts ....
```

```
Note the differences in the following pairs.

There is little research. (negative, i.e., not enough)

There is a little research. (neutral, i.e., maybe enough)

The department has few computers. (negative, i.e., not enough)

The department has a few computers. (neutral, i.e., maybe enough)
```

Note the use of no/none of.

No studies/data/calculations . . .

Use *no* when your conclusion is based on but does not directly refer to the cited literature. If you want to refer directly to the previous research, use *none of*.

None of these studies/findings/calculations . . .

However, you may want to avoid using a full negative like "no studies"; chances are that somebody will find an exception to your strong statement!

Verbs	
However, previous research in t	this field has
a. concentrated on	g. neglected to consider
b. disregarded	h. overestimated
c. failed to consider	i. overlooked
d. ignored	j. been restricted to
e. been limited to	k. suffered from
f. misinterpreted	l. underestimated

Adjectives	
Nevertheless, these attem fillings and disease are at	pts to establish a link between dental present
a. controversial	e. questionable
b. incomplete	f. unconvincing
c. inconclusive	g. unsatisfactory
d. misguided	

Of course, not all RP Introductions express Move 2 by indicating an obvious gap. You may prefer, for various reasons, to avoid negative or quasi-negative comment altogether. In such cases, a useful alternative is to use a contrastive statement.

The research has tended to focus on . . . , rather than on . . .

These studies have emphasized . . . , as opposed to . . .

Although considerable research has been devoted to ..., rather less attention has been paid to ...

However, it remains unclear whether . . . It would thus be of interest to learn how . . . If these results could be confirmed, they would provide strong evidence for . . . The findings suggest that this approach might be less effective when . . . It would seem, therefore, that further investigations are needed in order to . . .

However, it remains unclear whether . . . It would thus be of interest to learn how . . . If these results could be confirmed, they would provide strong evidence for . . . The findings suggest that this approach might be less effective when . . . It would seem, therefore, that further investigations are needed in order to . . .

Introduction Section: Occupying the Niche

The third and final step in the typical RP Introduction is to make an offer to fill the gap (or extend the tradition) that has been created in Move 2. The first element in Move 3 is obligatory. It has two main variants:

Purposive (P) The author or authors indicate their main purpose or purposes

or

Descriptive (D) The author or authors describe the main feature of their research.

Introduction Section: Occupying the Niche

```
In this paper we give preliminary results for . . .
The main purpose of the experiment reported here
was to ...
This study was designed to evaluate . . .
The present work extends the use of the last model
by . . .
We now report the interaction between . . .
The primary focus of this paper is on . . .
The aim of this investigation was to test ...
Our primary objective in this paper is to provide ....
```

Introduction Section: Occupying the Niche

```
The present work extends the use of the last model to asymmetric,
 M
       body-vortex cases, thus increasing the range of flow patterns that can
       be investigated. 12 In addition, an effort is made to improve the
       numerical procedure to accelerate the convergence of the iterative
       solution and to get a better rollup of the vortex lines representing the
       wake. (Copyright © 1984 AIAA—reprinted with permission)
These secondary statements are often introduced by such language as
        In addition, . . .
       Additionally, . . .
        A secondary aim . . .
        A further reason for . . .
```

Introduction Section: final stage

In Table 26 (p. 244) we listed four other elements that can be found at the end of introductions. (There can be others, such as a depiction of the statistical measures employed.) The list order of the four elements is also the most likely order of occurrence:

- 3b. by listing research questions or hypotheses
- 3c. by announcing principal findings
- 3d. by stating the value of the present research
- 3e. by indicating the structure of the RP

Introduction Section: final stage; structure of RP

The plan of this paper is as follows. Section II describes the current arrangements for regulating exchange rates within the EC. In Section III a theoretical model is constructed which is designed to capture these arrangements. Experimental parameters are then tested in Section IV. Finally, Section V offers some suggestions for the modification of the current mechanisms. (Pierre Martin, unedited)

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Methods

Table 22 Variation in Methods Sections		
Condensed	Extended	
Assumes background knowledge	Sees need to provide background	
Avoids named subsections	Several named subsections	
Uses acronyms and citations as shorthand	Uses descriptions	
Running series of verbs (e.g., collected, stained, and stored)	Usually one finite verb per clause	
Few "by + verb-ing" "how" statements	A number of "how" statements	
Few definitions and examples	More definitions and examples	
Few justifications	Several justifications (often initial purpose clauses)	
Few linking phrases	Wide range of linking phrases	

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Methods

is usually the easiest section to write and, in fact, is often the section that researchers write first.

Methods sections are very variable across the disciplines, and even the term *Methods* is not always used, as when authors use *The Study* as their section heading. In some fields, it is common to have subsections in Methods that might deal with materials, the apparatus used, definitions employed, the subjects or participants in the study,

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Results

- Using location statements
- Highlighting key findings from the data
- Rounding figures and making generalized comparisons

Results: Verbs

	Indicative	Informative
show	Y	Y
provide	Y	N
give		
present		
summarize		
illustrate		
reveal		etaso stosob a la
display		de la companya del companya del companya de la comp
demonstrate		dolle base et au
indicate		
suggest		

Results: Commentary.. if any

Type of Commentary	Number of Papers (max. = 20)
Justifying the methodology	19
Interpreting the results	19
Citing agreement with previous studies	11
Commenting on the data	10
Admitting difficulties in interpretation	8
Pointing out discrepancies	4
Calling for further research	0

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Discussion section

7 Discussion Moves

Points to consolidate your research space (obligatory)

Points to indicate the limitations of your study (optional but common)

Points to recommend a course of action and/or to identify useful areas of further research (optional and only common in some areas)

Discussion section: Opening

Three begin with a discussion of the literature. Here are two "skeletal" examples.

- 1. Graikowski et al. (1986) recovered . . . toxin from . . . and found that . . . suffered 100% mortality when. . . .
- 2. Food shortages, social stress . . . within . . . are causes of dispersal among . . . (Fritz and Mech 1981, Messier 1985, Mech 1987, Packard and Mech 1980).

Discussion section: Opening

Two sections start in a more dramatic way by offering a general conclusion.

- 3. Apparently, we are witness to the early phases of a classic population explosion.
- 4. From this data, it is clear that . . . are not major consumers of commercially important fish-species in. . .

Discussion section: Opening

The remaining types of opening occur only once in the sample. We were surprised, for example, to find only one opening that reminds the reader of the original purpose.

5. The objective of the survey was to quantify the number of . . . within . . .

In another case, the author opens with a summary.

6. This report brings together all known records of . . . since 1959.

In another, the authors raise the level of discussion by referring to theory.

7. The interrelationship of bird populations and the environment is extremely complex.

Discussion section: Structure

Details of the Opening Move

Report your accomplishments by highlighting major findings.

Relate and evaluate your data in the light of previous research.

Interpret your data by making suggestions as to why your results are the way they are.

Anticipate and deal with potential criticisms (only if necessary).

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Acknkowledgement

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2. Thanks

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I wish to thank A for his encouragement and guidance throughout this project.

We are indebted to B for . . .

We are also grateful to D for . . .

Acknkowledgement

3. Disclaimers (following element 1 or 2)

However, the opinions expressed here do not necessarily reflect the policy of [sponsor].

The interpretations in this paper remain my own.

None, however, is responsible for any remaining errors.

However, any mistakes that remain are my own.