

# Academic English

Producing academic texts

Tracing and revising inexpedient language use

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# Two steps: Effective writing for medical science

## Rules & conventions matter if you want to publish!

### Step 1 Know “the rules”



1. Consult reporting **guidelines** on contents
2. Follow journals' **instructions**
3. Learn academic writing **conventions**

## 1. Reporting guidelines

A catalogue of reporting guidelines for health research. Eur J Clin Invest 2010 ; 40(1): 35-53  
[http://cdn.elsevier.com/promis\\_misc/Reporting%20Guidelines.pdf](http://cdn.elsevier.com/promis_misc/Reporting%20Guidelines.pdf)

### What?

International guidelines on **contents** and style

- reflect experts' consensus opinion
- endorsed by journals
- research design-specific checklists & advice

### Where?



equator  
network

<http://www.equator-network.org/>

# Two steps: Effective writing for medical science

## Contents Design-specific

- **Strobe:** Observational study
- **Grade:** Meta-analysis
- **Orion:** Infection control

**Prisma:** Systematic review  
**Stard:** Diagnostic accuracy  
**Consort:** Randomized studies

## Consort

### Introduction

### Discussion




2a Background and rationale  
2b Specific objectives/hypotheses

20 Limitations (bias, imprecision...)  
21 Generalizability (validity...)  
22 Interpretation of results

## Contents Journal-specific

1 Nature and scope of problem  
2 Brief review of pertinent literature  
3 Rationale of study  
4 Purpose of paper  
5 Rationale for choice of method  
Int. J Oral Maxillofacial Surgery

1 Principal findings  
2 Strengths/weaknesses of study  
3 Str/weak of results comp to others'  
5 Meaning of study; implications  
5 Unanswered questions  
6 Future research  
BMJ

 Check move structure in target journal  
if no set move structure is prescribed!

# Two steps: Effective writing for medical science

## Contents – A functional perspective or “what are we doing with words”

### Conven- tions

### Moves & steps

- 1. Introduce research area**
  - a) Summarize previous research
  - b) Claim general importance
  - c) Make topic generalization
- 2. Establish research niche**
  - a) Indicating gap or
  - b) Raise question/doubt or
  - c) Make counter-claim or
  - d) Claim benefit, take next step
- 3. Occupy research niche**
  - a) State purpose
  - b) State main results (some displ)
  - c) Describe structure (some displ)

1. Background (optional)
- 2. Present own results**
3. Ex/unexpected outcome (option)
- 4. Compare with other research**
5. Explain result / the unexpected
6. Example supporting explanation
- 7. Deduct/conclude/claim)**
8. Hypothesis (optional)
9. Support for 7-8 (optional)
10. Recommendation (optional)
- 11. Suggest future work**

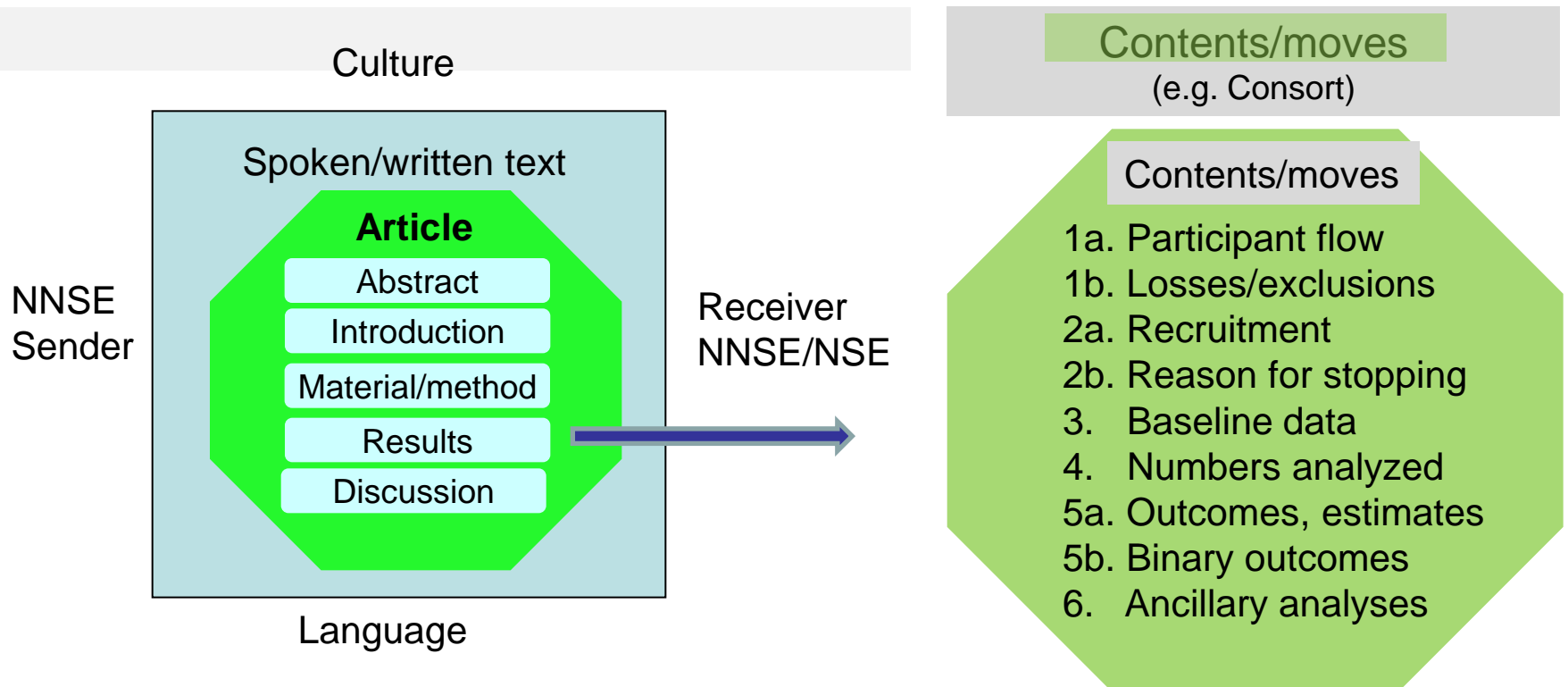
Repeated for every main finding

## Two steps: Effective writing for medical science

### Move structure conventions are genre/subgenre-specific

Conventions are followed at the levels of

- Culture/genre-specific **schematic structures** (general or design-specific moves & steps)
- Target **language conventions**, grammar & usage (tool usage)



## Two steps: Effective writing for medical science

1b “There was only one protocol deviation, in a woman in the study group. She had an abnormal pelvic measurement and was scheduled for elective caesarean section. However, a trial of labour was judged acceptable; caesarean section was done when there was no progress in the first stage of labour

[http://www.consort-statement.org/consort-statement/13-19---results/item13b\\_losses-exclusions/](http://www.consort-statement.org/consort-statement/13-19---results/item13b_losses-exclusions/)

**Conventional features!**  
Not cast in iron!

### Language

Nominal structure  
Dichotomies/hierarchies  
Past tense  
No hedging  
Agent-less passives  
Main sentences  
  
Theme/rheme structure  
Declarative sentences  
Lexical cohesion

### Contents/moves

- 1a. Participant flow
- 1b. Losses/exclusions
- 2a. Recruitment
- 2b. Reason for stopping
3. Baseline data
4. Numbers analyzed
- 5a. Outcomes, estimates
- 5b. Binary outcomes
6. Ancillary analyses

## Two steps: Effective writing for medical science

1b “There was only one protocol deviation, in a woman in the study group. She had an abnormal pelvic measurement and was scheduled for elective caesarean section. However, a trial of labour was judged acceptable; caesarean section was done when there was no progress in the first stage of labour”

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### Language

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Main sentences  
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Declarative sentences  
Lexical cohesion

### Move/step

- 1a. Participant flow
- 1b. Losses/exclusions
- 2a. Recruitment
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3. Baseline data
4. Numbers analyzed
- 5a. Outcomes, estimates
- 5b. Binary outcomes
6. Ancillary analyses

## Two steps: Effective w

**Theme:** What we talk about. In Results section often sentence subject

**Rheme:** What we say about the theme. In Results section often the rest of the sentence

1b “There was only one protocol deviation, in a woman in the study group. She had an abnormal pelvic measurement and was scheduled for elective caesarean section. However, a trial of labour was judged acceptable; caesarean section was done when there was no progress in the first stage of labour

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Dichotomies/hierarchies

Past tense  
No hedging  
Agent-less passives  
Main sentences

Theme/rheme structure  
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6. Ancillary analyses

## Two steps: Writing conventions

### 3. Conventions in academic writing

**Conventions** are **situated** and genre-specific

Every text exists in a **context**

Every text serves a context-specific **purpose** in two ways



Texts form **genres** (e.g. research paper, poster)

Genres serve **contextual purposes** in genre-specific ways

Some genres may be broken down to **subgenres**

Subgenres serve contextual purposes in subgenre-specific ways

# Two steps: Effective writing for medical science

## Four levels of functional text analysis

### 1. Genre

Whole text  
(meta)

**Research paper**  
(IMRaD)

Disseminate  
research

### 2. Subgenre

Text section  
(macro)

**Introduction**

Set stage for own  
research and  
outline rationale

### 3. Move

Sentence/clause  
(meso)

**M1 Intro res.**  
M2 Create niche  
M3 Occupy niche

Spur reader's  
interest

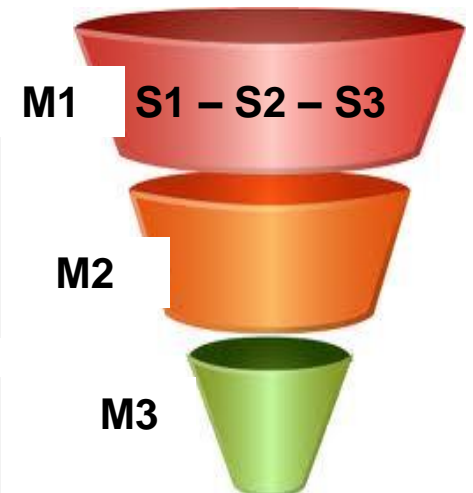
### 4. Step

Clause/phrase  
(micro)

**S1 Rev pre res**  
S2 Claim import  
S3 Generalize

Update reader on  
relevant research  
on chosen topic

### Introduction



# Two steps: Effective writing for medical science

## Subgenre - Abstract

### Genre features of Abstract

- Purpose      Short recap of main text; presents results
- Structure      Move structure and size (word count) defined by journals
- Form      Description (and some exposition)
- Language      Syntax: Simple, main sentences  
Compact noun groups; short, mostly main sentences

#### Move structure: (general)

1. Short introduction ("setting the scene"; 1-2 sentences)
2. Short section on materials and methods
3. Main results (75% of body of text)
4. Short discussion (2-3 sentences)

## Two steps: Effective writing for **Always** consult *Instructions*, to see if structured abstract is required by the journal

### Subgenre - abstract

### Specific move structures: BMJ (Max 250 words) <http://www.mco.edu/lib/instr/libinsta.html>

1. **Objectives** a clear statement of the main aim of the study and the major hypothesis tested or research question posed
2. **Design** including factors such as prospective, randomization, blinding, placebo control, case control, crossover, standards for tests etc.
3. **Setting or** level of care, e.g. primary, secondary; number of centers
4. **Participants** who, how selected, what entry and exclusion criteria, etc.
5. **Interventions** what, how, for how long
6. **Measures** main outcome measures planned in protocol, those finally measured; if different, explain why
7. **Results** main results with (for quantitative studies) 95% confidence intervals and, where appropriate, the exact level of statistical significance
8. **Conclusions** primary conclusions and their implications, suggest areas for further research if appropriate

## Two steps: Effective writing for medical science

**Exercise:** 1) Read the below abstract intended for the BMJ. 2) Does its move structure fit the BMJ (objective, design, setting/participants, intervention, effect measures, results, conclusion)? 3) Does the choice of words clearly signal the intended communicative purpose of each move?

1 The calcium antagonist verapamil has been shown to increase oxygen extraction  
2 of ischemic tissues in coronary and peripheral disease. Since the balance be-  
3 tween beneficial and deleterious effects of vasodilation in ischemic disease may  
4 be delicate we investigated the clinical and hemodynamic effects of verapamil in  
5 44 patients with intermittent claudication (Fontaine's stage IIb - III) in a randomiz-  
6 ed double-blind placebo controlled crossover study (4 weeks with placebo/ vera-  
7 pamil) after individual optimal dose of the drug had been evaluated in a dose re-  
8 sponse study. Eight, 8, 14, and 14 patients revealed the longest walking distance  
9 on 120, 240, 360, and 480 mg, respectively of slow-release verapamil once daily.  
10 In individually optimal doses verapamil increased pain free walking distance by  
11 27% from 44.9 to 57.8 m ( $p < 0.001$ ) and maximal walking distance by 49% from  
12 100.7 to 149.8 m ( $p < 0.001$ ) as compared to placebo. The increase in maximal  
13 walking distance after verapamil administration was positively correlated to initial  
14 systolic ankle pressure (...) and to ankle/brachial index (...) and to no other  
15 parameter.

## Two steps: Effective writing for medical science

BMJ abstract moves: objective, design, setting/participant, intervention, effect measures, results, conclusion

### Moves

Objective

Design

Participants

Intervention

Effect

Results

Conclusion

The aim of this study is to investigate the clinical and hemodynamic effects of verapamil. A dose-response study was performed to determine optimal, individual verapamil dosages. On this basis a randomized double-blind placebo-controlled cross-over study was performed to assess the drug's clinical and hemodynamic effects. Forty-four patients with intermittent claudication (Fontaine's stage IIb - III) were included in the study. Slow-release verapamil was administered. Its effect was determined from walking ability, absence of pain on walking, and maximal walking distance. The optimal, single daily dose of slow-release verapamil in terms of walking ability was 120 mg (8 patients), 240 mg (8 patients), 360 mg (14 patients) and 480 mg (14 patients). Optimal doses increased pain-free walking distance by 27% from 44.9 to 57.8 m ( $p < 0.001$ ) and maximal walking distance by 49% from 100.7 to 149.8 m ( $p < 0.001$ ). The increase in maximal walking distance correlated positively only with initial systolic ankle pressure (...) and ankle/brachial index. In conclusion, verapamil increases a patient's ability to walk

# Two steps: Effective writing for medical science

## Subgenre - Introduction

### Genre features

- Purpose      Outline background - State research rationale - Set the scene
- Structure      Defined by design and by convention (3 moves)  
Move 1: Funnel paragraph structure
- Form      Mainly expository with elements of description and argumentation in move 1
- Language      Syntax: Varied (main + subordinate sentences) with occasional fronted sub-ordinate sentences and inverted word order  
Lexis: “Strong” verbs; adjectives/adverbs; hedging; argumentative cohesion

## Two steps: Effective writing for medical science

### Purpose:



Outline background  
State research rationale  
Set the scene for own research

= Exposition

### Move structure

1. Introduce research area
  - 1a. Summary of previous research
  - 1b. Claim general importance
  - 1c. Make topic generalization
2. Establish research niche
  - 2a. Indicating a gap
  - 2b. Raise question or doubt about existing research
  - 2c. Make counter-claim / contrast
  - 2d. Claim benefit of or take step in planned research project
3. Occupy the niche
  - 3a. State purpose of research
  - 3b. Give main expected results (optional)
  - 3c. Describe structure of paper (optional)

**Move 1: Outline research field**

1b: Claim general importance

1a: Give summary of research

1c: Make topic generalization

1a: Summary of previous research

**Move 2: Create your niche**

2b: Describe lack in existing research

**Move 3: Occupy your niche**

1a: State purpose

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Urinary incontinence in women is a common distressing, and costly health problem. Studies have shown that only about a quarter of affected women consult a doctor for their symptoms, and the treatment probably not optimal (ref.). The general practitioners diagnose urinary incontinence. Several treatments are suitable in general practice. In two controlled trials in general practice most of the women had improved or were cured after management; similar results were found in a study in which treatments were administered by nurses (ref.). Such studies, however, are often performed by one dedicated doctor or specially trained staff, so the results may not reflect what is attainable in ordinary practices. The aim of this study is to conduct an observational study of treatment of urinary incontinence in women in general practice in a community where a group of general practitioners serves the total population.

**Mention only that which is of immediate relevance to your niche & purpose**

## Two steps: Effective writing for medical science

Language form suggests function (purpose) of move/step :

### Move 1 - Step 1a: Claiming centrality

*The growing /emerging interest in systemic NSAIDs has augmented/ heightened/ increased /spurred the need for tools suitable to assess their adverse, mainly gastrointestinal side effects. Of particular interest/ urgency/ topicality is how to foretell/ foresee/ foreshadow/ predict/ is increased/augmented...*

#### Lexis:

*Growing/ emerging interest*

*Augmented/ heightened need*

*Particular interest/ urgency*

#### Syntax (inversion):

*Of particular  
interest/urgency.... is*

#### Other expressions: inversion

*Particularly important ...*

*Especially interesting ....*

*Rather more significant ...*

*Especially noteworthy*

*Of greater concern ...*

## Two steps: Effective writing for medical science

Language form suggests function (purpose) of move/step :

Transition: From move 1 to move 2: Step 2b: **Indicating a gap**

### Negative subject

#### Uncountable

*However, little information ...  
little attention ...  
little work ...  
little data ...  
little research ...*

#### Countable

*However, few studies ...  
few investigations ...  
few researchers ...  
few attempts*

**Exercise:** 1) Read the below introduction and see if you can trace its move structure. 2) Then turn overleaf, compare the two texts and comment on the difference between them in terms of thematic structure (sentence by sentence)

Painful diseases in the motor system constitute one of the largest groups of diseases that require medical treatment. Even though systemic treatment of such diseases with non-steroidal anti-inflammatory drugs (NSAIDs) has proven to be efficient, dose-dependent side effects, especially gastrointestinal, are unfortunately not uncommon. An alternative to systemic NSAID administration would be percutaneous administration. Recently, a new NSAID cream (DOLGITR, Dolorgiet, Germany) has been tested. The tests have shown that the active substances in this cream is concentrated specifically in the muscle fascia, muscle tissue (1).

The purpose of many clinical studies has been to evaluate the antinociceptive effect of systemic NSAIDs in humans, but so far only few experimental studies have been performed (2, 3, 4).

Topical application of NSAID cream has recently shown to be efficient for e.g. treatment of tendopathies (5, 6) and sports-related injuries (7). This indicates that topical NSAID can be an alternative treatment to systemic NSAID.

So far no experimental studies have been performed to assess the effect of topical NSAID application. In rheumatology there is a need for suitable experimental models. Clinical assessment of pain with Visual Analogue Scales (VAS) is useful for many purposes, but is difficult to use for conditions where a localised pain relief is investigated e.g. one joint or muscle is treated whereas the surrounding joints and muscles are untreated.

In the present placebo controlled double-blind study, we have used a pressure algometer to measure finger joint pain thresholds to assess the effect of 5% ibuprofen cream applied to a single finger joint in patients with symmetric rheumatoid arthritis (RA).

**Exercise:** 1) Read the below introduction and see if you can trace its move structure. 2) Then turn overleaf, compare the two texts and comment on the difference between them in terms of thematic structure (sentence by sentence)

Painful diseases in the motor system constitute one of the largest groups of diseases that require medical treatment. Even though systemic treatment of such diseases with non-steroidal anti-inflammatory drugs (NSAIDs) has produced side effects, especially gastrointestinal, are unfortunate, systemic NSAID administration would be percutaneous cream (DOLGITR, Dolorgiet, Germany) has been tested. The substances in this cream is concentrated specifically in the site of pain. The purpose of many clinical studies has been to evaluate the antinociceptive effect of systemic NSAIDs in humans, but so far only few experimental studies have been performed (2, 3, 4). Topical application of NSAID cream has recently shown to be efficient for e.g. treatment of tendopathies (5, 6) and sports-related injuries (7). This indicates that topical NSAID can be an alternative treatment to systemic NSAID. So far no experimental studies have been performed to assess the effect of topical NSAID application. In rheumatology there is a need for suitable experimental models. Clinical assessment of pain with Visual Analogue Scales (VAS) is useful for many purposes, but is difficult to use for conditions where a localised pain relief is investigated e.g. one joint or muscle is treated whereas the surrounding joints and muscles are untreated. In the present placebo controlled double-blind study, we have used a pressure algometer to measure finger joint pain thresholds to assess the effect of 5% ibuprofen cream applied to a single finger joint in patients with symmetric rheumatoid arthritis (RA).

Research niche:  
"few experimental studies  
of topical NSAID use for  
localised pain relief"

## Topic sentence

1. Painful diseases in the motor system constitute one of the largest groups of diseases that require medical treatment
2. Even though systemic treatment of such diseases with nonsteroidal anti-inflammatory drugs (NSAIDs) has proven to be efficient, dose-dependent side effects especially gastrointestinal are unfortunately not uncommon.
3. An alternative to systemic NSAID administration would be percutaneous administration.
4. Recently, a new NSAID cream (DOLGITR, Germany) has been tested.
5. The tests have shown that the active substances in this cream is concentrated specifically in the muscle fascia, muscle tissue, joint capsule, and in the synovial fluid and muscle tissue
6. The purpose of many clinical studies has been to evaluate the antinociceptive effect of systemic NSAIDs in humans, but so far few experimental studies have been performed
7. Topical application of NSAID cream has recently shown to be efficient for e.g. treatment of tendopathies and sports-related injuries.
8. In rheumatology there is a need for suitable experimental models.
9. Clinical assessment of pain with Visual Analogue Scales is useful for many purposes, but is difficult to use for conditions where a localised pain relief is investigated e.g. one joint or muscle is treated whereas the surrounding joints and muscles are untreated.
10. In the present placebo controlled double-blind study we have used a pressure algometer to measure finger joint pain thresholds to assess the effect of 5% ibuprofen cream applied to a single finger joint in patients with symmetric rheumatoid arthritis

1. Medical treatment of painful diseases in the motor system can be performed in a number of ways.
2. Systemic treatment has included administration of non-steroidal, anti-inflammatory drugs (NSAIDs). Though efficient, NSAIDs have had dose-dependent, mainly gastrointestinal, side effects.
3. Systemic NSAID treatment has so far focused on the antinociceptive effect in humans, and experimental studies have been few.
4. Percutaneous NSAIDs treatment could be an alternative to systemic NSAID treatment.
5. A new NSAID cream (DOLGITR, Germany) has recently been tested.
6. This antinociceptive cream has been shown to act specifically on the muscle fascia, muscle tissue, joint capsule and on the synovial fluid and muscle tissue.
7. The cream has also proven efficient in topical treatment of tendopathies and sports-related injuries.
8. Pain can be assessed in many ways, eg by Visual Analogue Scales (VAS).  
This method is not optimal where localized pain relief is sought, eg if a joint or muscle is being treated while adjacent joints and muscles are left untreated.
9. VAS therefore cannot be applied, so new experimental models for pain assessment are needed
10. A double-blind, placebo-controlled study was hence designed to measure finger joint pain thresholds by pressure algometry in patient with rheumatoid arthritis (RA) treated with 5% ibuprofen cream applied to a single finger joint.

## Topic sentence



1. Background (repeat Purpose)
2. **Own results (main/part)**
3. Poss. Resume of result
4. **Compare/assess results**
5. **Conclude on study, context**
6. **Discuss/assess study**
7. **What follows from the study**

## Discussion: Hopkins & Dudley-Evans

The single patient with biopsy-proved hepatic involvement also had a positive spleen. This is in accord with the original observation of the Stanford group, who reported no instance of hepatic involvement without concomitant splenic involvement. The liver scan was primarily responsible for 8 of 9 false-positive liver evaluations. We conclude that as with the spleen scan, the liver scan has little value in the initial staging of Hodgkin's disease. Since liver function tests are also unreliable, it is clear that open biopsy is necessary in order to evaluate the liver more definitively. Even the latter technique is subject to the limitations of sampling procedures. One patient died of an acute myocardial infarction three months after staging laparotomy with negative liver biopsy. Hepatic involvement was found at autopsy.

**2. Result** (part result)

**4. Compare** to other research

Own **result** supports other research

**5. Conclusion 1**

**Result**  
Restatement

**5 Conclusion 2**

**5a Reservation**  
Conclusion 2

**Result** supports reservation (5a)

1. Background (repeat Purpose)
2. **Own results (main/part)**
3. Poss. Resume of result
4. **Compare/assess results**
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## Academic Phrasebank

suggests move/step function: **Discussion**

Click on the following:

### Major Sections

[Introducing work](#)  
[Reviewing literature](#)  
[Describing methods](#)  
[Reporting results](#)  
[Discussing findings](#)  
[Writing conclusions](#)

### General Functions

[Being critical](#)  
[Classifying and listing](#)  
[Compare and contrast](#)  
[Defining](#)  
[Explaining](#)  
[Expressing opinion](#)  
[Describing](#)  
[Describing](#)  
[Giving examples](#)  
[Writing about the future](#)  
[Preview and transition](#)

[phrasebank.pdf](#)  
[Useful links](#)  
[Home](#)

### Moves: **Language form**

- 2: State results
- 3: Resume of overall results
- 4: Compare with(support)  
previous research (contradict)
- 5: Conclude on study, context

Verbs: **Confirm**  
*Corroborate, verify,  
tally with, confirm,  
agreement with*

Verbs: **Contradict**  
*is not in keeping  
with, inconsistent  
contrast to*

**Build your own  
disciplinary-specific  
move and phrase bank**

proposition:  
*... suggests that..*  
*X may be evidence*  
*X led to the*  
*conclusion that ...*

... myocardial infarction three months after  
... with negative liver biopsy. Hepatic  
... found at autopsy.

## Two steps: Effective writing for medical science

### Step 2: Language matters if you want to publish!

Webster Online <http://grammar.ccc.commnet.edu/grammar/>

Information from Webster on grammar; linguistic and text composition exercises.

#### Guide to Grammar & Writing



Grammar levels: Word/sentence/paragraph  
Discourse levels: Research papers, essays

Word & Sentence Level

\*Guide (Home Page)\*

Paragraph Level

Select from ...

INDEX

Essay & Research Paper Level

Select from ...

Ask Grammar, Quizzes, and Tests

Select from ...

Peripherals & PowerPoints

Select from ...

GrammarPoll, Guestbook

Select from ...

Word & Sentence Level

\*Guide (Home Page)\*

Paragraph Level

Select from ...

INDEX

Essay & Research Paper Level

Select from ...

Ask Grammar, Quizzes, and Tests

Select from ...

Peripherals & PowerPoints

Select from ...

GrammarPoll, Guestbook, Awards

Select from ...

Drop-down menus

# Two steps: Effective writing for medical science

## Online grammars and writing tools

### Webster Online: Transition between ideas - coherence

**COHERENCE:  
TRANSITIONS  
BETWEEN IDEAS**

THE MOST CONVINCING IDEAS IN THE WORLD, expressed in the most beautiful: those ideas are properly connected. Unless readers can move easily from one thought to something else to read or turn on the television.

Providing transitions between ideas is largely a matter of attitude. You must never what you know. In fact, it's a good idea to assume not only that your readers need all need to know how you arrived at the point you're at, but also that they are not quite a able to leap from one side of the stream to the other; believe that your readers need s place them in readily accessible and visible spots.

There are four basic mechanical considerations in providing transitions between: repeating key words and phrases, using pronoun reference, and using parallel form.

**USING TRANSITIONAL TAGS**

Transitional tags run the gamut from the most simple — the little conjunctions: *as* sometimes) *so* — to more complex signals that ideas are somehow connected — the expressions such as *however*, *moreover*, *nevertheless*, *on the other hand*.

Select from the following ▼

<b>addition</b>	again, also, and, and then, besides, equally important, finally, first, further, furthermore, in addition, in the first place, last, moreover, next, second, still, too
<b>comparison</b>	also, in the same way, likewise, similarly
<b>concession</b>	granted, naturally, of course
<b>contrast</b>	although, and yet, at the same time, but at the same time, despite that, even so, even though, for all that, however, in contrast, in spite of, instead, nevertheless, notwithstanding, on the contrary, on the other hand, otherwise, regardless, still, though, yet
<b>emphasis</b>	certainly, indeed, in fact, of course
<b>example or illustration</b>	after all, as an illustration, even, for example, for instance, in conclusion, indeed, in fact, in other words, in short, it is true, of course, namely, specifically, that is, to illustrate, thus, truly
<b>summary</b>	all in all, altogether, as has been said, finally, in brief, in conclusion, in other words, in particular, in short, in simpler terms, in summary, on the whole, that is, therefore, to put it differently, to summarize
<b>time sequence</b>	after a while, afterward, again, also, and then, as long as, at last, at length, at that time, before, besides, earlier, eventually, finally, formerly, further, furthermore, in addition, in the first place, in the past, last, lately, meanwhile, moreover, next, now

- Addition
- Comparison
- Concession
- Contrast
- (*howeveritis*)
- Emphasis
- Etc.

## Online grammars and writing tools

## Word/sentence level: Subject-verb agreement

Neither of the two traffic lights **is** working.

# Two steps: Effective writing for medical science

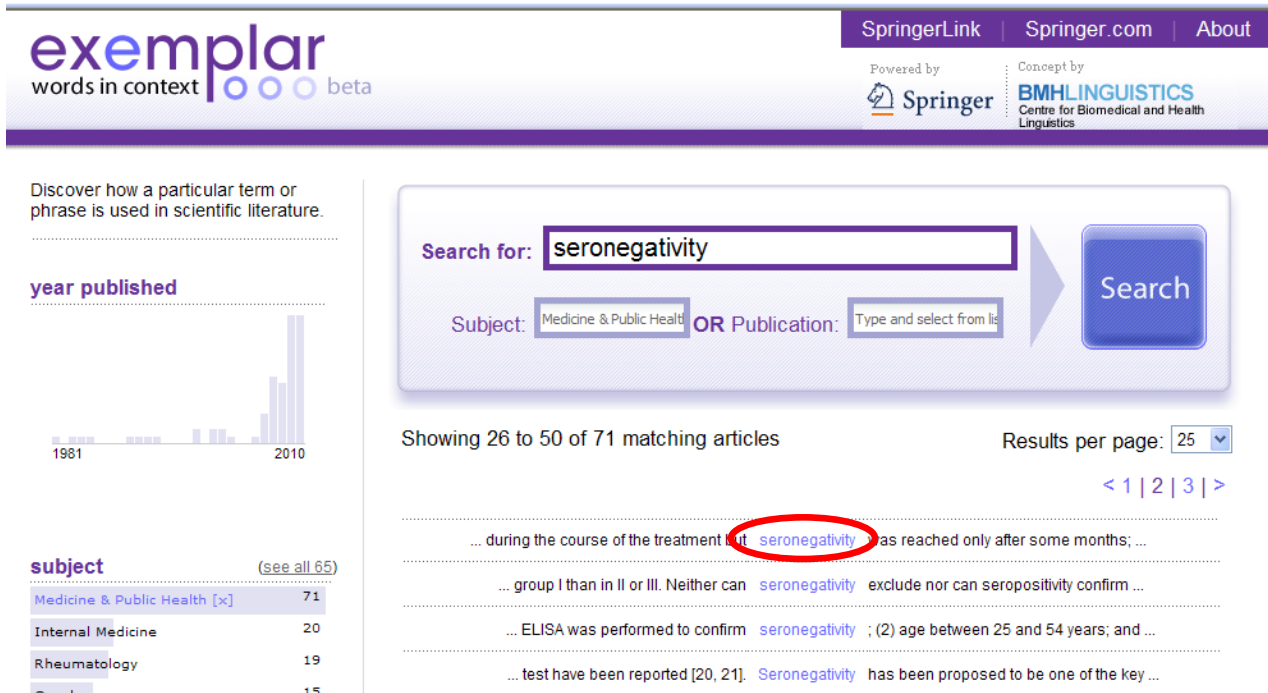
## Specialized language text banks (corpora)

### Springer Exemplar

<http://www.springerexemplar.com/>

#### Why use this site?

- Quality data bank
- Real-life language
- Check **usage**
- Find **collocations**
- **Link** to articles



The screenshot shows the Springer Exemplar website. The header includes the logo 'exemplar words in context beta' and navigation links for SpringerLink, Springer.com, and About. It also mentions 'Powered by Springer' and 'Concept by BMHLINGUISTICS Centre for Biomedical and Health Linguistics'.

The main search area has a search bar with 'seronegativity' entered. Below it, there are filters for 'Subject: Medicine & Public Health' and 'Publication: Type and select from list'. A 'Search' button is to the right.

Below the search bar, it says 'Showing 26 to 50 of 71 matching articles' and 'Results per page: 25'. There are pagination links '< 1 | 2 | 3 | >'. The search results are listed below, with the word 'seronegativity' highlighted in red in the first result.

On the left side of the search results, there is a 'year published' bar chart showing a significant increase in publications starting around 2005, peaking in 2010. Below this is a 'subject' list with counts: Medicine & Public Health [x] 71, Internal Medicine 20, Rheumatology 19, and Oncology 15. A link '(see all 65)' is provided for the subjects.

Verb + noun: *to confirm / propose / reach seronegativity*



## Two steps: Effective writing for medical science

### Language **system** differences

DK **adverb** → UK **adjective**

#### Danglish

The patient admitted to smoking a cigarette *occasionally*

Agitation was interrupted *occasionally* to allow admixture of fresh medium

Twenty *more* subjects were admitted to the trial

#### English

The patient admitted to smoking an *occasional* cigarette

*Occasional* interruptions of agitation allowed addition of fresh medium

*Another* twenty subjects were admitted to the trial

**Study differences at level of word classes, syntax, grammar:**

What are the differences between English and your mother tongue

## Two steps: Effective writing for medical science

### Language **system** differences

DK **adverb** → UK **verb**

#### Danglish

This hypothesis may be *unverifiable*

The shortage of penicillin *still* gives  
cause for concern

The equipment has now been  
upgraded so as to include incinerators

Nonlinear equations are *unsolvable*

#### English

This hypothesis *resists* verification

The shortage of penicillin *continues to  
cause* concern

The equipment has now been  
upgraded *to include* incinerators

Nonlinear equations *defy* solution

## Two steps: Effective writing for medical science

### Language **system** differences

DK **preposition** → UK **–ing** (*participle*) form

#### Danglish

The rules *for* this procedure are explained in the manufacturer's instructions

The surgical principle *for* abdominorectal incision is ...

An incision was made *towards* the anterior aspect

#### English

The rules ***governing*** this procedure are explained in the manufacturer's instructions

The surgical principle ***underlying*** abdominorectal incision is ...

The incision was made ***facing*** the anterior aspect

## Two steps: Effective writing for medical science

### Language **system** differences

Develop general rules: Reduce number of prepositions



#### Danish



#### Prepositional **post**modification

*Individuals without training*

*Individuals on early retirement*

*Individuals with little education*

#### English



#### Adjectival **pre**modification

*Unskilled individuals*

*Early retirees*

*Poorly educated individuals*

#### Participial construction

*The rules governing this procedure*

*The surgical principle underlying X*

*An incision was made facing X*

*The rules for this procedure*

*The surgical principle for X*

*An incision was made towards X*

## Two steps: Effective writing for medical science

### All the traditional problems! Dangling participles

Participle (*-ing*, *-ed*, *-ent* added to infinitive form of verb) relates to preceding noun  
Participle dangles if the implied subject is not subject of main clause of sentence

#### Caution:

*\*ing*  
*by + \*ing*  
*by + \*ed*  
*when + \*ing*  
*when + \*ed*  
*based on*  
*following*  
*considering*  
*using*

≠ Paying attention to the rules of writing, most texts can be improved

≠ After terminating drug treatment, behavioural therapy is recommended

≠ Based on the rare occurrence of haemophilia A in women, experience regarding the use of Helixate NexGen 1000 IU during pregnancy and breast-feeding is not available

≠ Considering that saquinavir has the weakest CYP3A4 inhibitory potency among all protease inhibitors, midazolam should be systematically reduced during prolonged infusion when administered in combination with protease inhibitors other than saquinavir

## Two steps: Effective writing for medical science

**Exercise:** Check the below sentences. Identify any dangling participles. Note that some of the sentences may be ok

*Based on the results, we concluded that the drugs are equally effective*

*Based on the results, our conclusion is that the drugs are equally effective*

After preparing the samples, our focus was on collecting the data

After preparing the samples, we focused on collecting the data

To investigate the relationship, a series of experiments were designed

We designed a series of experiments to investigate the relationship

**Advice:** 1) Be on alert for dangling modifiers at **beginning of sentences**  
2) Ask **who or what** is doing action; make sure implied subject is doing it  
3) Write in **active voice** whenever possible

## Two steps: Effective writing for medical science

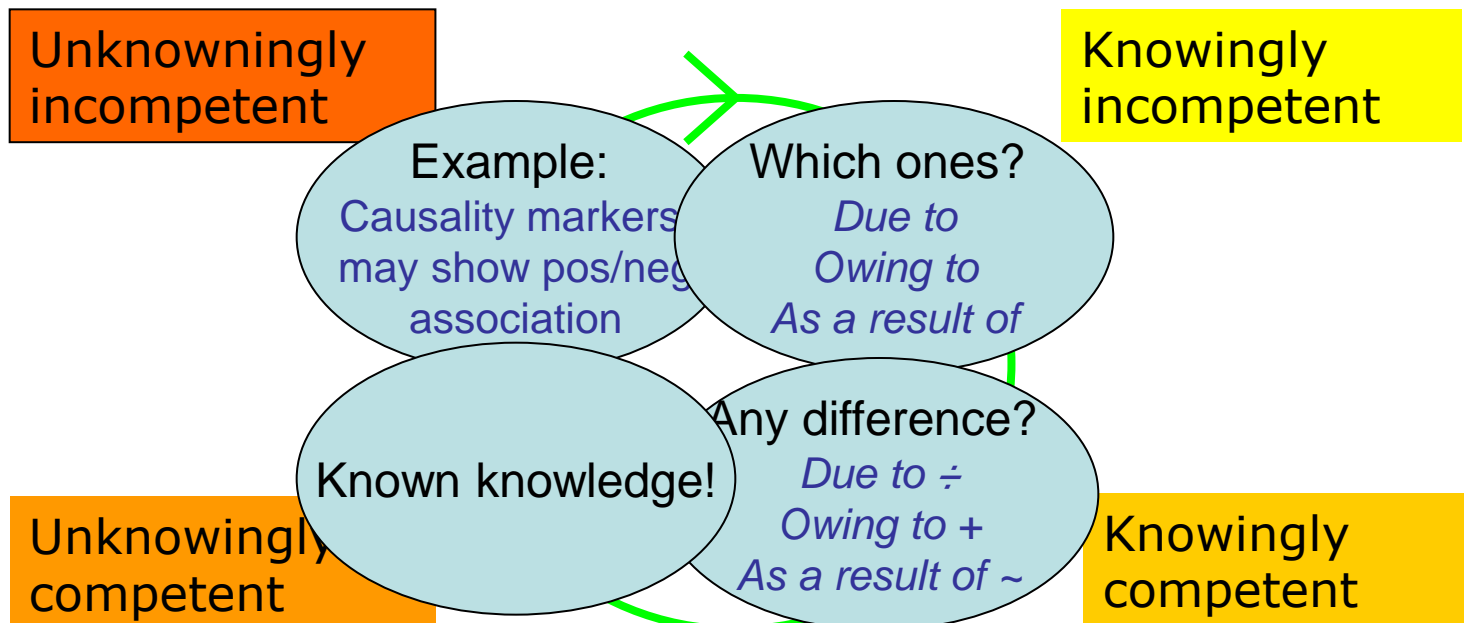
**Exercise:** Check the below sentences. Identify any dangling participles. Note that some of the sentences may be ok

- 1) After a quick change into my hospital gown, the nurse told me to relax
- 2) Dentists provide many useful tips for your health. For instance, flossing your teeth daily, gum disease can be prevented
- 3) Before engaging in aerobic exercises, warm-up activities are necessary
- 4) Stung by wasps, bees or other insects, toxins can bring on allergic reactions
- 5) When following a strict diet – one high in protein and low in carbohydrates – weight loss programs can make a difference in the quality of life.
- 6) Inhaling the fumes from paint thinner, statistics show that significant brain damage can occur
- 7) Having applied a tourniquet, the bleeding finally stopped
- 8) Medical research offers the modern world many miracles. Using a small amount of infected nutrient, serums can be prepared to inoculate people against polio.
- 9) While making experiments, the problem of bacteriology of drain puzzled us
- 10) Disgusted with his own dangling modifiers, the teacher reviewed his handouts and felt ill

# Two steps: Effective writing for medical science

**Know** what you don't know!

## Causality



## Two steps: Effective writing for medical science

**Know** what you don't know!

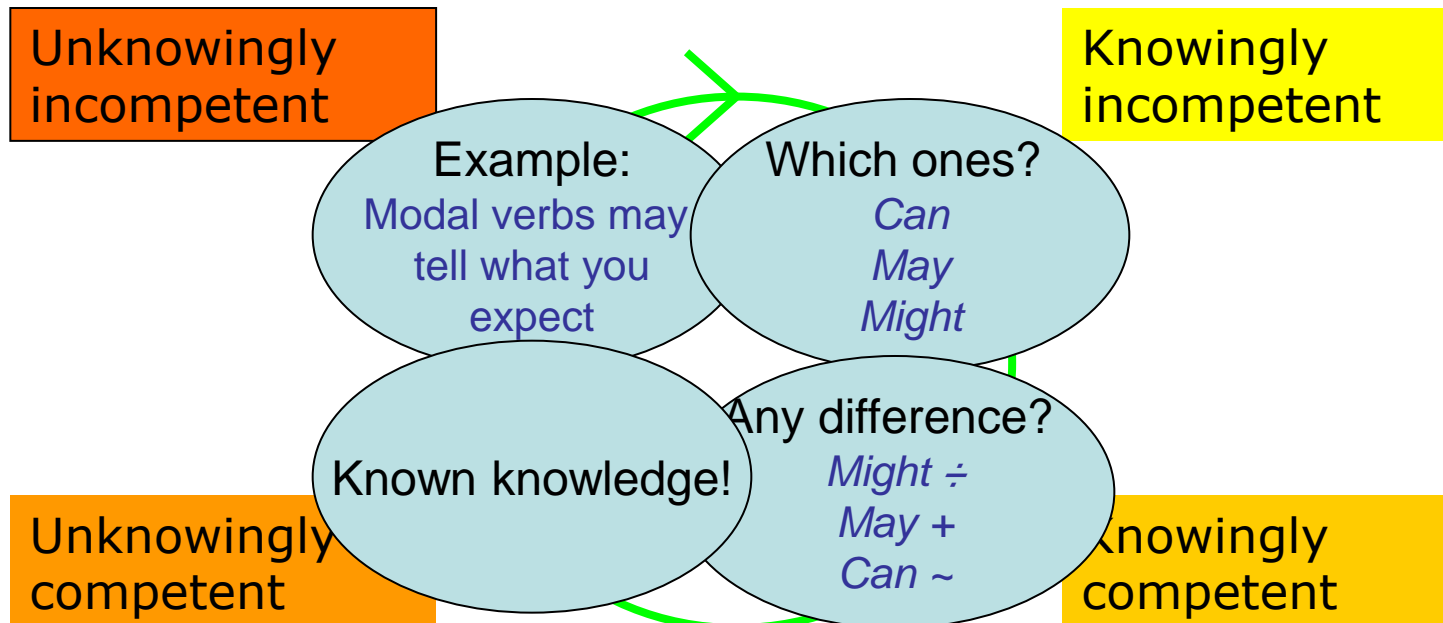
**Likelihood – modal verbs**



**Free advice:**

Know your tool box!

Spend 30 min every day

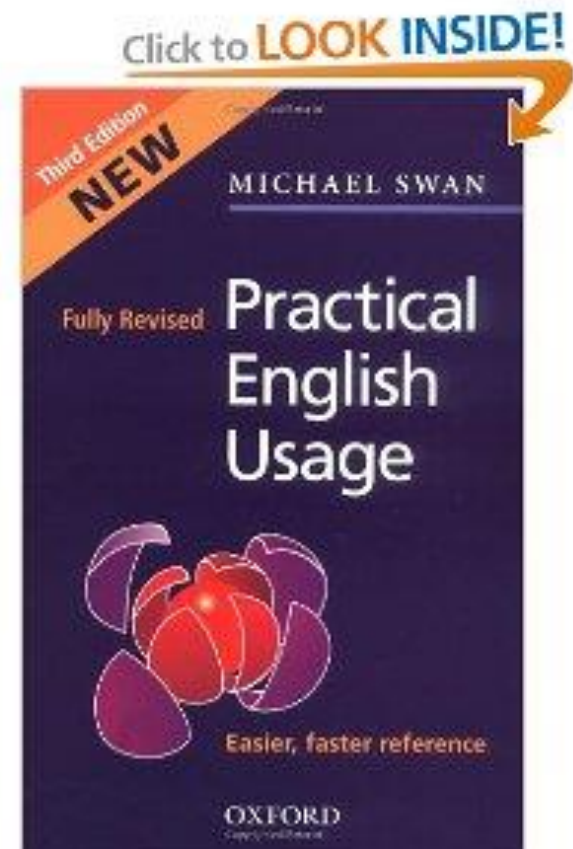


## Two steps: Effective writing for medical science

### Buy – and use this book!

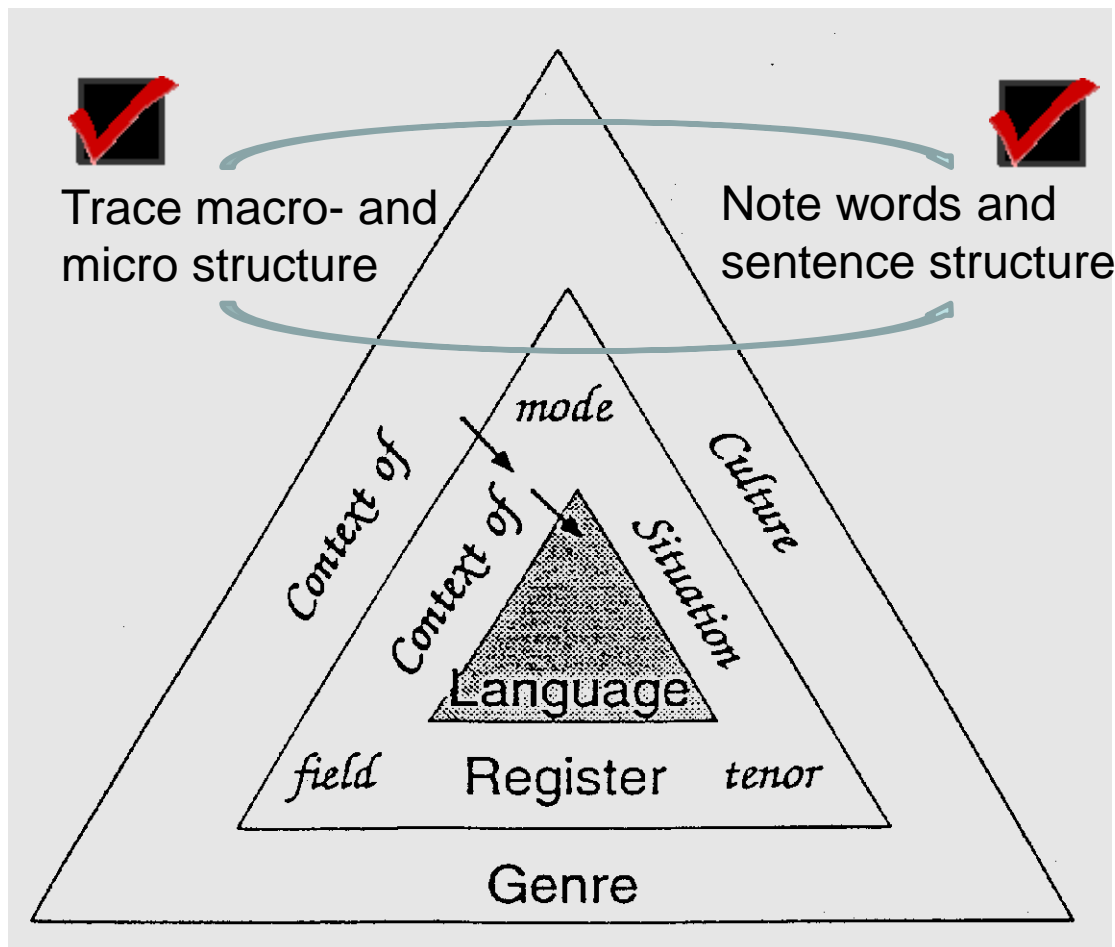
331 **may** and **might**: possibility

*Might* is not used as a past form of *may*: both *may* and *might* are used to talk about the present or future. *Might* is mostly used as a less definite or more hesitant form of *may*, suggesting a smaller chance – it is used when people think something is possible, but not very likely



## Two steps: Effective writing for medical science

### Read, observe & practice



... **or CALL for help!**

## Focus:

- Structure
- Clarity & correctness
- Source language interference

## Form:

- Track changes
- Notes
  - explaining errors
  - suggesting change

**Abstract:**

**Hemoglobin** (Hb) is a full-length protein found in all other vertebrates. In the

Denne sætning rummer, som jeg ser det,

I engelsk bør man i videst muligt omfang undgå "-ing"/"-ed"-former i bisætninger eller billedsætninger. Hvis man skal kunne finde sit subjekt (grundledet) eller objekt (genstandsled) i hovedsætningen - indsæt "which" som erstatning for manglende henførende led

complex determined at 2.9 Å resolution. The structure reveals how two Hp molecules dimerize through an  $\beta$ -strand swap between complement control protein (CCP) (for Complement Control Protein) domains, and thereby forming a very tight interaction. The SP (for serine protease (SP)) domain of Hp is responsible for Hb binding and interacts with both the  $\alpha$ - and  $\beta$ - subunits which results in one of the strongest non-covalent interactions observed in plasma.

Abstract mangler klar trækstruktur (fx

Baggrundstræk er for "lærebogsagtigt".

Der sættes komma mellem helsætninger,

Formålet bør signaleres eksplicit vha. formuleringen *The aim ..is..* Jeg synes, du bør have en sætning om, hvor meget svin og menneske ligner hinanden måske med tilføjelsen til sætningen: *We used porcine HpHb because it exhibits a 82% sequence identity with its human counterpart*

## **Two steps:** Effective writing for medical science

Design-specific guidelines  
Journal-specific instructions  
Disciplinary move conventions

+

Appropriate text structure  
Purposeful language usage  
Proper English language

=

Publication success 😊 !

Comments/questions?