

THE INTRODUCTION SECTION

"Creating A Research Space" CARS model (John Swales, *Genre Analysis*, CUP, 1990)

MOVE 1: ESTABLISHING A TERRITORY

(Tutkimusalueen esittely)

STEP 1: MAKING A CENTRALITY CLAIM

(osoittamalla aiheen keskeisyys)

AND/OR

STEP 2: MAKING TOPIC GENERALISATIONS

(esittämällä aiheesta yleistäviä huomautuksia)

AND/OR

STEP 3: REVIEWING ITEMS OF PREVIOUS RESEARCH

(referoimalla aikaisempia tutkimuksia)

SITUATION

MOVE 2: ESTABLISHING A NICHE

(Oman reviirin osoittamalla)

STEP 1A: COUNTER-CLAIMING

(esittämällä vastaväite/ -väitteitä aikaisemmalle tutkimukselle)

OR

STEP 1B: INDICATING A GAP (in previous research)

(osoittamalla aikaisemassa tutkimuksessa olevan aukoja)

OR

STEP 1C: RAISING A QUESTION (about previous research)

(herättämällä kysymyksiä)

OR

STEP 1D: CONTINUING A TRADITION

(ilmoittamalla jatkavansa perinettä)

PROBLEM

MOVE 3: OCCUPYING THE NICHE

(Oman reviirin rajaaminen)

STEP 1A: OUTLINING PURPOSES (Why?)

(esittämällä tutkimuksen tavoitteet)

OR

STEP 1B: ANNOUNCING PRESENT RESEARCH (What? How?)

(esittämällä oma tutkimusaihe)

STEP 2: ANNOUNCING MAIN FINDINGS

(esittämällä päätulokset)

STEP 3: INDICATING STRUCTURE OF THE PAPER

(hahmottamalla artikkelin jäsentely)

SOLUTION

STEP 4: EVALUATION OF FINDINGS*

(Arvioimalla tulokset)

MOVE 1: ESTABLISHING A TERRITORY

Introduction generally start by describing the general "terrain" or "layout" of their research area using one or more of the following strategies.

STEP 1: CLAIMING CENTRALITY

The writer states that the topic of research is **useful, relevant, important**, or **worth** investigating since it forms part of a **lively, significant** or **well-established** research area. Centrality claims frequently serve as **topic sentences** and are therefore usually followed by evidence to support this statement.

*The effect of...has been studied **extensively** in recent years.*

*Of the many...,have been the **most extensively studied**.*

*The effects of... **have received considerable attention***

***Many investigators** have recently turned to...*

*A **large body of data** concerning...has been reported.*

*In recent years, there have been **many papers** describing...*

*Recently, there has been **wide interest in**...*

*In recent years, researchers have become **increasingly interested in**...*

*The possibility of...has generated **interest in**...*

*Knowledge of...has **great importance** for...*

*The study of...has become an **important aspect** of...*

*...are believed to play an **important role** in...*

*The explication of the relationship between... and ...is a **classic problem** in fluid mechanics.*

*A **long-standing problem** has been to obtain more information on...*

*The well-known...phenomena...have been **favorite topics** for analysis both in...*

*A **central issue** in...is the validity of...*

STEP 2: MAKING TOPIC GENERALISATIONS

These consist of statements concerning the current state of either **knowledge, consensus, practice** or description of **phenomena**.

*The general features of... are **well known**.*

*Plumage coloration **is known to** influence mate selection in mallards.*

*An increase of Mallards in eastern North America **has been well documented**.*

*Trout **are believed to be** relatively immobile.*

*It is **generally accepted** that...*

*There is now **much evidence** to support the hypothesis that...*

*A **standard procedure** for assessing...has been...*

*Such...methods are **often criticized** for...*

*it is **commonly** suggested that...*

*Comparisons of spatially separated populations **tend to consist of**...*

STEP 3: REVIEWING ITEMS OF PREVIOUS RESEARCH

Here, the writer needs to relate **what has been found** (or **claimed**) with **who has found it** (or **claimed it**).

***Smith (1989)** found...*

It has been suggested that...(Smith 1989)

***Belovsky (1981)** concluded that...*

*Data have been presented in the **literature** [1], [5] which suggest that...*

***Peterson (1988)** argued that...*

*Observations by **Smith (1989)** suggest that...*

MOVE 2: ESTABLISHING A NICHE

After describing important features of their research territory (**Move 1**), academic writers typically try to claim a "**niche**" for their research. They can do this by showing that the previous research (or solutions) are not complete, or that there are aspects of the research field still needing further investigation. This is often signalled by words expressing a **contrast** or **negative evaluation** such as the following.

CONTRAST	QUANTITY	VERBS		ADJECTIVES	
however but yet nevertheless unfortunately although	few less little no none not	fail ignore lack prevent hinder obviate	neglect overlook question challenge deter limit	scarce elusive limited restricted difficult inefficient	ineffective inconclusive uncertain unclear unreliable unsatisfactory

STEP 1A: COUNTER-CLAIMING

This step frequently follows **Move 1-Step 3 (Reviewing Items Of Previous Research)** and is used to introduce an opposing viewpoint or pinpoint weaknesses in previous research (or solutions).

*However, this view **is challenged** by recent data showing...*

*However, these studies have **failed** to recognize the...*

However, recent work in our laboratory suggests that...

*....., **but** the experiments were performed on...and are therefore **suspect**.*

*...these approaches become **increasingly unreliable** when...*

STEP 1B: INDICATING A GAP (in previous research)

Frequently follows **Move 1-Step 2 (Making Topic Generalisations)**

*A considerable amount of research has been... **but little** research...*

*...has been extensively studied. **However, less** attention has been paid to...*

*As a result, **no** comprehensive theory appears to exist.*

***Despite** the importance of..., **few** researchers have studied...*

*Research has tended to focus on...**rather** than...*

*The **only** reported study to date of...covered a **limited** range of...*

*...studies have appeared previously in the literature, **but** measurements were **restricted** to...*

*The properties of...are still **not completely understood**.*

*Evidence on this question is presently **inconclusive**.*

STEP 1C: RAISING A QUESTION (about previous research)

*However, it is **not clear whether** the use of...can be modified to...*

***In spite of** these early observations, the mechanism...has **remained unclear**.*

*The **question** remains...?*

***How much** has the seal population actually decreased?*

STEP 1D: CONTINUING A TRADITION

Frequently signalled by logical connectors, such as **therefore, Hence, Consequently, or thus**.

*These differences **need to** be analyzed...*

***Hence**, additional studies of...**are needed**.*

*It is **desirable to** carry out surveys of...*

*It is **of interest to** compare...*

MOVE 3: OCCUPYING THE NICHE

Here, writers reveal their solution to help *fill the gap*, *answer the specific question* or *continue a research tradition* that has been presented in Move 2:

STEP 1A: OUTLINING PURPOSES (Why?)

The writer introduces his/her solution to the problem described in Move 2 by stating the main *purpose* or *aim* of the study. Note in the examples below how the *verb tense* used depends on whether the writer is referring to a *physical* or *abstract* concept.

PRESENT TENSE:

The present tense tends to be used when the aims are described in terms of **the written product** held physically in the reader's hands.

(paper, article, thesis → PRESENT)

The aim of this paper is to...
The purpose here is to document...

PAST TENSE:

The past tense tends to be used when the aims are described in terms of abstract concepts such as **mental enquiry**.

(study, investigation, experiment → PAST)

The aim of the present study was to elucidate...
The objective of this research was to quantify...
Our purpose was to describe...

STEP 1B: ANNOUNCING PRESENT RESEARCH (What? Who? How? Where? When?)

This step represents an alternative strategy to that used in Step 1A. Here, the writer describes the aims in terms of what the research sets out to "do" or **accomplish**. Notice how the same information can be expressed using either **human** or **inanimate agents** as the subject:

HUMAN AGENT:

In this study, we suggest a 3-step process...
In this letter, we propose a ...algorithm.
In this paper, we attempt to develop a...
In this letter, we provide a novel approach to...
In this paper, we describe novel algorithms for...
In this paper, we present a system for...

INANIMATE AGENT:

This paper evaluates the effect on...
This research presents data on...
This study focuses on a strategy for...
The present study tested...
This thesis proposes a formal procedure for...
This paper introduces a novel architecture for...

STEP 2: ANNOUNCING MAIN FINDINGS

In this step, the writer considers the results to be the most important aspect of the research and therefore reports these as part of the introduction. Beware, not all disciplines allow this in the Introduction Section!

In this paper, we argue that...
This approach provides effective...
Our results indicate that this method is effective in...

STEP 3: INDICATING STRUCTURE OF THE PAPER

We have organized the rest of this paper in the following way...
This paper is structured as follows...
The remainder of this paper is divided into five sections...

STEP 4: EVALUATION OF FINDINGS

*Numerical results show that **the proposed algorithm** not only enjoys advantages of low complexity and ease of implementation but is also able to achieve performance very close to the optimum achievable bound.*