

Seminar DA150X

Jane Bottomley

Timetable (31 March, 3 April)

- 13.00-13.15 Welcome
- 13.15-13.30 Peer review guidelines
- 13.30-13.45 Look at your own text with your writing partner and make notes
- 13.45-14.15 Read the text of another pair and make notes
- 14.15-15.00 Peer review of introductions
- 15.00-15.15 Break
- 15.15-15.30 Language and flow review
- 15.30-15.50 Peer review of language and flow
- 15.50-16.00 Q & A

Where do we start?

Audience

Purpose

Strategy

Peer review: Approach

- A peer reviewer is a reader and a critical friend
- You will see the text through their eyes
- You can put yourself in the reader's shoes
- Stand back from your text
- Get some distance



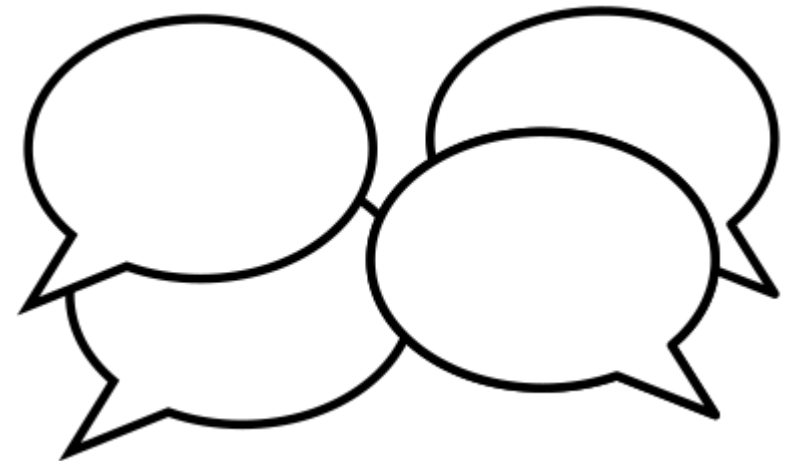
Peer review: Reviewing introductions

- Does the introduction attract the reader's attention?
- Is there a clear link between the problem and why this study was carried out?
- Is the research question clearly stated?
- Are the aims and objectives clearly stated?
- Is the text reader-friendly?



Peer review: Process

- Start by deciding how to divide up the time so that you spend the same time on each text
- Keep an eye on the time
- Be constructive in your feedback
- It should be a dialogue – let the authors respond to your points



Peer review: Responding to feedback

- Which advice will you accept? Why?
- Which advice will you reject? Why?
- Which advice will you reserve judgement on? Why?





Peer review: Language and flow

- Before the next part of the peer review, we will review some aspects of language and flow by analysing parts of a KTH research project introduction

Example paragraphs from Introduction section of:

Effects of Different Worker Heuristics in Marriage in Honey Bees Optimization: As Applied to the Graph Coloring Problem

Li, Lisa, KTH, School of Electrical Engineering and Computer Science
(EECS)

Vyth, Jakob, KTH, School of Electrical Engineering and Computer
Science (EECS).

2018 (English)

<https://www.kth.se/social/course/DD142X/page/good-report-examples/>

Example paragraphs

- Generally clear and well written
- Demonstrates features of good flow
- Good but not perfect
- Note what is good but think about what could be improved

How is this paragraph structured?
What do the different colours represent?

Biologically inspired algorithms are based on the observed and interpreted behaviors in biological systems. Examples include a wide variety of systems, one of which is honey bees. Honey bee colonies consist of tens of thousands individual bees working together in a highly structured social order toward a common goal - the survival of the colony. There are several different kinds of tasks within the colony that need to be completed in an optimized manner. Studying these optimization behavioral patterns can produce interesting meta-heuristics for solving difficult computational problems.

Topic sentence

Biologically inspired algorithms are based on the observed and interpreted behaviors in biological systems. **Examples include a wide variety of systems, one of which is honey bees.** Honey bee colonies consist of tens of thousands individual bees working together in a highly structured social order toward a common goal - the survival of the colony. There are several different kinds of tasks within the colony that need to be completed in an optimized manner. **Studying these optimization behavioral patterns can produce interesting meta-heuristics for solving difficult computational problems.**

Examples

Important details

Refers back and summarises before adding new and important information

What is the purpose of the highlighted phrases?
What is the purpose of the second sentence?

A behavioral pattern that has lead to intensive research is **the mating process** of honey bees. **The mating process** involves all different kinds of bees in the colony: the fertile female bees called queens, the male bees called drones, and infertile female bees called worker bees. **The mating process** begins when a queen initiates **a so called mating flight**. During **the mating flight**, the queen mates with several drones in succession and uses their sperm to lay eggs. The eggs are raised into broods by the worker bees. Female broods become queens depending on how they are raised, and **the mating process** begins anew with the new queens.

Repetition of main theme + clear
verbs throughout paragraph
develops theme step by step

A behavioral pattern that has lead to intensive research is **the mating process** of honey bees. **The mating process** involves all different kinds of bees in the colony: the fertile female bees called queens, the male bees called drones, and infertile female bees called worker bees. **The mating process** begins when a queen initiates **a so called mating flight**. During **the mating flight**, the queen mates with several drones in succession and uses their sperm to lay eggs. The eggs are raised into broods by the worker bees. Female broods become queens depending on how they are raised, and **the mating process** begins anew with the new queens.



Clear categorisation
using colon

A behavioral pattern that has lead to intensive research is the mating process of honey bees. The mating process involves all different kinds of bees in the colony: the fertile female bees called queens, the male bees called drones, and infertile female bees called worker bees. The mating process begins when a queen initiates a so called mating flight. During the mating flight, the queen mates with several drones in succession and uses their sperm to lay eggs. The eggs are raised into broods by the worker bees. Female broods become queens depending on how they are raised, and the mating process begins anew with the new queens.

What is the function of the highlighted words?
How does the use of acronyms aid flow?

MBO has been shown to be applicable on several different problems, among them the Graph Coloring Problem (GCP). The goal of GCP is to assign colors to the vertices of a graph such that no neighbor vertices have the same color using a minimal amount of colors. GCP is applicable to many real life applications such as taxi scheduling, timetable construction, and compiler register allocation (Lewis, 2016). **Unfortunately**, GCP is NP-complete (Karp, 1972), meaning there is no known efficient (polynomial-time) algorithm for finding a coloring which uses the minimal amount of colors for any given graph. **Therefore**, finding polynomial-time heuristics for solving GCP is of interest.

First part of text lays the ground for introduction of problem and solution

MBO has been shown to be applicable on several different problems, among them the Graph Coloring Problem (GCP). The goal of GCP is to assign colors to the vertices of a graph such that no neighbor vertices have the same color, using a minimal amount of colors. GCP is a classic problem with many real life applications such as taxi scheduling, timetabling, construction, and compiler register allocation (Lewis, 2016). **Unfortunately**, GCP is NP-complete (Karp, 1972), meaning there is no known efficient (polynomial-time) algorithm for finding a coloring which uses the minimal amount of colors for any given graph. **Therefore**, finding polynomial-time heuristics for solving GCP is of interest.

Signals problem

Is this the best word?

Signals solution

Begins with full term and
acronym in brackets
Thereafter uses acronym:
consistent and efficient

MBO has been shown to be applicable on several different problems, among them the **Graph Coloring Problem (GCP)**. The goal of **GCP** is to assign colors to the vertices of a graph such that no neighbor vertices have the same color using a minimal amount of colors. **GCP** is applicable to many real life applications such as taxi scheduling, timetable construction, and compiler register allocation (Lewis, 2016). Unfortunately, **GCP** is NP-complete (Karp, 1972), meaning there is no known efficient (polynomial-time) algorithm for finding a coloring which uses the minimal amount of colors for any given graph. Therefore, finding polynomial-time heuristics for solving **GCP** is of interest.

Peer review: Language and flow

- Now give feedback on each others' texts with a focus on language and flow
- Make reference to **The KTH Guide to scientific writing** and the text analysis from this class



