

## CHECKLIST FOR THESIS AND SCIENTIFIC ARTICLES

### Content

#### TITLE

Is descriptive

Is catchy

Contains no abbreviations (unless really everybody know them: TV, DNA)

#### ABSTRACT

clearly describes the subject

clearly describes what problem is solved

makes clear why subject / problem is relevant

clearly describes the methods used

describes as concretely possible the obtained results

clearly indicates what is new

#### INTRODUCTION

describes (in more detail) the subject

clearly describes the problem solved

makes clear why subject / problem is relevant

clearly describes the methods used

argues why these methods (language, techniques, tools,...) have been chosen

clearly describes the results

compares results with (state-of-the-art) literature

clearly indicates what is new

is complete: all important information in paper is mentioned in the intro

#### RELATED WORK (in Introduction or separate section)

describes the difference current paper and existing solutions

is up-to-date (as recent as possible)

is complete (no important work missed)

#### PROBLEM AND QUESTION (in separate section or section intro)

it is clear what the problem from the paper is

problem is SMART:

- Specific
- problem definition is measurable / quantitative wrt *clear criteria*
- problem definition is feasible (proposal)
- problem definition is relevant
- problem definition is time bound / urgent

#### RESEARCH METHOD

is effective (does research questions indeed solve the research problem?)

is transferable (a peer achieves the same results as the author)

are obtained via to scientific methods

#### BODY ( results )

have been obtained according to the described research methods

are controllable

are repeatable

#### CONCLUSIONS

answer research questions

provide directions to for new research

do not contain any new information

### **CORRECTNESS**

This paper is correct (and I dare to bet a crate of beer on this)

this paper is innovative

all statements are supported by arguments

arguments are convincing and obtained according to scientific methods

all design choices are well supported by arguments

## **Specific components**

### **REFERENCES**

are consistent (all same format)

for webpages is date indicated

the vast majority refer to reliable sources with scientific status

### **TOOLS and TOOL COMPONENTS**

tool structure is written with image : component in box, data on arrows

of each tool (component) is described : input, output, methods

it is clear what has been programmed by the author, and what is from elsewhere (eg with color)

### **ALGORITHMS, MODELS**

are explained using line numbers

it is clear what each line is

### **PICTURES, DIAGRAMS, TRANSITION SYSTEMS**

every picture is explained

For each part in the picture it is clear what it represents (arrows, round boxes, etc)

### **FIGURES and TABLES**

all figures are readable and provided with clear captions

all the figures are presented in tables, or better: diagrams

for multiple tables : results are aggregated in overview table

the introduction refers in advance to the most important result tables

### **PLANNING ( only in proposal)**

is realistic

complies with format

## **General**

### **STRUCTURE**

paper is written according to (reverse) pyramid (= important info comes first)

uses the golden circle principle (what-why-how)

paper makes structure explicit: shows ever on what will go

paper contains only the information needed is for results to understand , no byways

## **GLOBAL**

paper is consistent: it is always the same format / terminology used  
introduces all concepts that are used  
references to literature are explicit, clear , correct

## **LANGUAGE USE**

language use is as specific / concrete as possible  
there are short phrases used  
English is correct  
all sentences are complete (verb , subject)  
the language is objective  
There is little noun style used  
language use is active  
it is clear what reference words (which, it ...) refer to (no "dangling pointers")

## **EXPLANATION / UNDERSTANDING**

where possible , examples are used for illustration purposes  
I can explain this paper to my fellow peers  
anyone with a BSc in computer science can understand this paper  
explain difficult concepts , concepts , formulas , methods with examples  
... I can not put invent where examples might be able to help  
these examples are, where possible, pictures or diagrams