

# Dissemination of research

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ADAPT, The global centre of excellence for digital content and media innovation

AIRC, The Applied Intelligence Research Center

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What you thought you would write about when you planned your study might be different than what it makes sense to write about when the study is completed.

*The work may not have gone exactly as you predicted.*

However, as a researcher you want to disseminate your findings.

- To **share** your practice with others
- To **disseminate** your research findings
- To **explore topics** of interest
- To **increase the impact** and visibility of your work
- To **add to the existing body of knowledge** and create new knowledge

- To enhance **curriculum vitae**
- To gain **recognition** and establish a track record in a particular field
- To **market** the library/demonstrate value
- To **express yourself** in a creative way
- To enhance **personal satisfaction**

**Build your manuscript upon the findings that you found and not the findings that you hoped to find.**

Tell what you have learned, not all the false leads or mistakes.

If your results suggests a compelling framework for reorganising the purpose of your study, so mention it.

- Peer-reviewed **workshops** with proceedings
- Peer-reviewed **conferences** with proceedings
- Scholarly, peer-reviewed **journals** (convey conducted research)
- Professional **practitioner journals** (interpret research for practice)
- Yearbooks of professional organisations + **book chapters**
- Popular **magazines**

Identify the intended publication target before you write. Each target has own template, style and size.

Follow the organizational standard or format of the intended journal or publication.

*Write simply, in a linear narrative fashion.*

### **Portions of publications may be read by non-experts.**

Craft the introduction and discussion sections so that an audience wider than subscribers can understand what was learned and why they should care.

The methods and results section generally presume more expertise.



- stimulate reader's interest
- working title/final title
- attract and inform the reader
- stand out
- be accurate
- facilitate intending and retrieval

- generally only required with a peer-reviewed manuscript
- synopsis
- details essence (different than introduction)
- length pre-determined (usually 100/250 words)

# Components of a manuscript - informative abstract

“ The focus of this study is the introduction of the construct of Human Mental Workload (HMW) in Web design, aimed at supporting current interaction design practices. An experiment has been conducted using the original Wikipedia and Google web-interfaces, and using two slightly different versions. Three subjective psychological mental workload assessment techniques (NASA-TLX, Workload Profile and SWAT) with a well-established assessments usability tool (SUS) have been adopted. T-tests have been performed to study the statistical significance of the original and modified web-pages, in terms of workload required by typical tasks and perceived usability. Preliminary results show that, in one ideal case, increments of usability correspond to decrements of generated workload, confirming the negative impact of the structural changes on the interface. In another case, changes are significant in terms of usability but not in terms of generated workloads, thus raising research questions and underlying the importance of Human Mental Workload in Interaction Design. ” <sup>1</sup>

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<sup>1</sup>Longo L. Rusconi F., Noce L. Barrett S., The Importance of Human Mental Workload in Web Design - 8th International Conference on Web Information Systems and Technologies (WEBIST 2012), Porto, Portugal, April 2012.

# Components of a manuscript - structured abstract

“ **Context** Mental workload is a concept used in many industries to investigate operator performance, but it has only recently been used in the educational setting. It has been suggested that excessive mental workload in assessors may impair the validity of objective structured clinical examination (OSCE)-type assessments.

**Objectives** This study aimed to establish the feasibility of measuring the mental workload of examiners during an OSCE assessment and to establish methodologies and baseline values to guide future study design. **Methods.** Two previously validated methods of measuring mental workload, the NASA-Task Load Index rating scale and use of a secondary task (response to a prompt from a vibrotactile device), were used to measure the workload of 10 subjects during a formative OSCE. Trainee anaesthetists (n = 24) working in an operating theatre were used as a control group.

**Results** The mental workload of examiners exceeded that of controls on both measures. Although there was marked inter-subject variability, reliability between stations for individual examiners was robust ( $\alpha = 0.922$ ).

**Conclusions** These data suggest that mental workload is excessive in OSCE examiners. Further studies are required to measure the effect of changes in assessment design and examiner training.”<sup>2</sup>

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<sup>2</sup>Byrne, A., Tweed N., Halligan, C. A pilot study of the mental workload of objective structured clinical examination examiners. Vol. 48(3), pp. 262-267, March 2014

- indexing terms (search engines will use these)
- avoid unnecessary prepositions especially in and of-use library marketing rather than marketing of library
- what terms do you use to do searches on this topic?

- introduces the substantive content of the paper + research question
- sets the scene, purpose, scope
- states how issue is addressed
- should begin with a broad statement ('Over the last 10 years, research on machine learning...')
- become more specific, until you introduce the focus for your manuscript or study
- summarise current knowledge prior to your work
- answers these: 'Why does this add?', 'Who cares'?

- Specific, conveys factual information telling what you did and why
- What you have done
- Who you have done it to/with
- What analysis you have carried out
- Report the occurrences that could have influenced the validity of your results

What you have found – method and results of data analysis<sup>3</sup>

Use tables and charts to augment text

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<sup>3</sup>this are combined in short manuscript



Begins with implications drawn from your study.

Moves to broader meanings to convey relevance and importance.

Almost no manuscript is accepted as submitted.

Rare to have a manuscript accepted with only a request to attend to some comments from the reviewers.

Be pleased if your result is a request to revise and resubmit.

It's acknowledged that we complain that a reviewer(s) was an idiot.

However, pay special attention to criticisms or suggestions made by them or by the editor.

Rewrite to address mis-readings.

Include an explanatory cover letter with resubmission.

Talk about your work.

Submit a proposal for an individual paper session at a conference organised by professional organisations.

This will help you get confidence and see the reaction of audience for future work/adjustment.

- workshops: for new and unpolished ideas
- conferences: for good and valuable ideas
- journals: for archival reference

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<sup>4</sup>Typical for computer science. Not in other scientific disciplines.

- workshops/conferences: **acceptance ratio** (long papers, short papers, posters)
- journal: **impact factor**<sup>5</sup>

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<sup>5</sup>The impact factor is a measure of the frequency with which the average article in a journal has been cited in a particular year.

- **h-index**: represent scientific productivity and impact. A researcher has index  $h$  if  $h$  of own paper have at least  $h$  citations each (e.g. Einstein <sup>6</sup>)
- **RG score**: a metric that measures scientific reputation based on how all of your research is received by your peers (e.g. L.A. Zadeh <sup>7</sup>)
- number of **total citations**

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<sup>6</sup><https://scholar.google.com/citations?hl=en&user=qc6CJjYAAAAJ>

<sup>7</sup>[https://www.researchgate.net/profile/LA\\_Zadeh](https://www.researchgate.net/profile/LA_Zadeh)

- journal impact factor  $\neq$  article impact factor<sup>8 9</sup>
- number of citations  $\neq$  impact

*'The widespread practice of counting publications without reading and judging them is fundamentally flawed.'*<sup>10</sup>

*'If used unwisely, as is increasingly the case, they discourage people (young ones in particular) right from the outset from daring to think, from exploring new paths [...]'*<sup>11</sup>

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<sup>8</sup>Seglen PO (1997). Why the impact factor of journals should not be used for evaluating research. *BMJ* 314 (7079): 498-502.

<sup>9</sup>Joint Committee on Quantitative Assessment of Research (June 12, 2008). 'Citation Statistics'. International Mathematical Union

<sup>10</sup>Parnas, D. L. 2007. Stop the numbers game. *Communication of the ACM* 50, 11 (Nov. 2007)

<sup>11</sup>Math. Struct. in Comp. Science Editorial Board; *Math. Struct. in Comp. Science* (2009), vol. 19, pp. 1-4.



*'If you can't describe what you are doing as a process, you don't know what your doing'*

(W.E. Deming)

- Hartley, J. (2008), *Academic writing and publishing: a practical handbook*. (London: Routledge, p. 23-27)
- Strunk Jr., W., White, E. B. (2000) *The Elements of Style*, 4th edition (Longman, Inc.)
- Williams, J.M., (1995) *Style: Toward Clarity and Grace* (University of Chicago Press)
- Day, R.A., Gastel, B. (2006) *How to Write and Publish a Scientific Paper* - 6th edition (Greenwood Publishing Group)
- Zobel, J. (2004) *Writing for Computer Science* - 2nd edition (Springer-Verlag New York)