Traffic Safety Research (TSR) article template: style and formatting guidelines

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**Abstract:** Write abstract in one paragraph. Do not use any text treatments (bold, italic). Be concise and stick to what is unique and most important in your work. What is the (real) research question you try to answer? What data and method did you use? What have you found? What does your work add to already existing knowledge? What are the main conclusions?

**Keywords:** keyword\_1, keyword\_2, keyword\_3 (in alphabetical order)

# Italic, bold and other type treatment

Generally, text treatments should be applied sparsely. Untreated roman type is the standard typeface used for text matter.

## Italic type

Italic type can be used for:

* To indicate quoted text, particularly if relatively long: It was defined by Johnsson (1977) as ‘*…a degree to which the response to treatment can be explained*’.
* Emphasis and highlighting: The severity of a traffic conflict is determined by its *initial conditions* rather than its *outcome*.
* To indicate that a word is in a foreign language: The decision about the Vision Zero (in Swedish *nollvisionen*) was taken by the parliament in 1998.
* In references, to indicate work titles (the exact rules are complex, so using the *TSR* EndNote style is recommended; otherwise check the reference examples at the end of this template).

## Bold type

The bold type is mostly used in headings. Other uses should generally be avoided. An allowed exception is in bulleted lists, when an item receives a short title (in bold), which is then further explained in regular roman text.

Three typical scenarios could be distinguished:

* **Type A**. The road user passes with its current speed.
* **Type B**. The road user slows down and then accelerates again.
* **Type C**. The road user stops and waits for the sufficient gap. This strategy was particularly common for slow moving vehicles.

For emphasis, use rather the *italic* type.

## Capitals

Capitals are mostly used in abbreviations. Do not use capitals for emphasis (use *italics* instead).

Capitals can be used in tables to distinguish the last row, when necessary, e.g. Total (see the table example in section 7).

## Underlining

Avoid underlining at all costs. The hyperlinks should not be underlined either, e.g. [email@email.com](mailto:email@email.com).

# Special symbols

Special symbols can be copied and paste into Word from services such as [www.amp-what.com](https://www.amp-what.com/).

* Left single quotation mark ( ‘ ): <https://www.amp-what.com/unicode/search/&lsquo;>
* Right single quotation mark ( ’ ): <https://www.amp-what.com/unicode/search/&rsquo;>
* Left double quotation mark ( “ ): <https://www.amp-what.com/unicode/search/&ldquo;>
* Right single quotation mark ( ” ): <https://www.amp-what.com/unicode/search/&rdquo;>
* Apostrophe ( ' ): <https://www.amp-what.com/unicode/search/&apos;>
* Hyphen ( - ): <https://www.amp-what.com/unicode/search/&dash;>
* En rule ( – ): <https://www.amp-what.com/unicode/search/&ndash;>
* Em rule ( — ): <https://www.amp-what.com/unicode/search/&mdash>;
* Non-breaking space: <https://www.amp-what.com/unicode/search/&nbsp;>
* Degree sign ( ° ): <https://www.amp-what.com/unicode/search/&deg;>
* Dot multiplication sign ( ⋅ ): <https://www.amp-what.com/unicode/search/&sdot;>

## Quotation marks

Use single quotation marks ( ‘xxx’ ) when repeating the exact words written/said by others. If the quoted text itself contains quotation marks, use different type of marks for that, i.e. ‘Xxx “yyy” xxx xxxx.’ If the two quotation marks come close together, put a non-breaking space (see section 2.3) between them: ‘ “Yyyy” xxxx xxxx.’

Quotation marks can be used to introduce a term that is relevant for the manuscript, but otherwise is not well-known or used: Such atypical behaviour, referred further as ‘delayed left turn’, is particularly common at Site 1. Once introduced, the term is further used without quotation marks.

Note that the left ( ‘ and “ ) and right ( ’ and ” ) quotation marks, as well as the apostrophe ( ' ), are all different punctuation marks with distinct and well-defined functions. They shouldn’t not be mixed up.

## Hyphen, en rule, and em rule

Hyphen is readily available on the standard keyboard. It is used as the minus sign in numbers (-12.5%) or in compound words (cross-reference). It is *not* used as a punctuation mark in compound sentences.

En rule ( – ) is used to indicate the range, e.g. 12%–15%, Sites 1–5 (sites one to five), found on pages 254–265, 10–12 October 2010, 45º–60º.

.

Em rule ( — ) has many uses, performing functions similar to those of commas, parentheses or colons: These tools—all based on unsupervised learning methods—are getting rapid popularity in transportation modelling.

No spaces are inserted before or after en and em rules.

## Non-breaking space

Non-breaking space prevents automatic line break at its position. For example, you would want to ensure that 10 kilometres always stay together on the same line rather than ‘10’ concluding one line and ‘kilometres’ starting the next line.

Non-breaking space is used:

* To separate three-digit groups in large numbers: 125 234
* To separate a quantity from its units of measure: 12.5 kg, 9.8 m/s2
* In formulas, to create some ‘air’ and improve readability: A = 3 ⋅ 4.

## Other commonly used symbols

* Per cent: 12.6% (no space); 12%–15%
* Degree sign: 25º (no space)
* Dot multiplication sign: 3 ⋅ 4 = 12 (with non-breaking spaces, it is a formula); 1.25⋅102 (no spaces, it is a single number written in the scientific format).

# Numbers and dates

## Number formatting

Use *full stop* ( . ) as a decimal sign. Use non-breaking space to separate 3-digit groups. Use hyphen as a negative sign: 125 300.55; -11.56; 33.5%; -6.55⋅105.

It is common to use words for quantities below ten and use digits for larger quantities (five participants, but 25 bicyclists). Do not mix them, though: 5 to 25 participants, not ~~five to 25~~.

## Units of measure

Both abbreviated and fully written units of measure are separated by a non-breaking space: 23 kg; 90 km/h; 11 a.m; 23 kilograms; 3 miles; the structure weighs 63 tons.

Note that units become plural when the quantity is more than one (3 kilograms, but 0.5 litre)

The exceptions are per cent and degree symbols which are not spaced: 25%; 33.5º.

## Currencies

The currency symbols precede the numerals (no space):

$25; €70.5; $15 billion.

Three-letter currency codes are separated with a non-breaking space:

EUR 40 000; USD 1 billion; SEK 500.

## Number ranges

Use *en rule* ( – ) to link the range numbers:

12–15; 95 000–110 000; 4.5–5.6 (no spaces before or after the rule)

For ranges including negative number use words to avoid confusion:

95% CI = -7.56 to -6.15.

Abbreviated units of measure are not repeated:

5–6 kg; 1 000–2 500 litres

but: 25%–30%; 12.5º–13.5º.

## Dates

The preferred date format is 12 September 2022.

A named day is separated by a comma: Friday, 30 September 2022.

Do not use -st, -rd, -th in conjunction with the figure (~~1st April 1980~~). Avoid using all-figure forms as they could mean different things in different countries (~~7/5/2012~~).

Use en rule to indicate a date range: 12–15 September 2020; data collection during the winter period 2019–2020.

# Lists

## In-text lists

The purpose of the paper is threefold: (*i*) to explore the existing literature on the problem, (*ii*) to identify knowledge gaps, and (*iii*) to suggest future research directions.

To improve readability, the commas between the list items can be replaced by semicolons ( ; ), especially if the listed text is complex and contains commas already.

## Displayed lists

The purpose of the paper is threefold:

* to explore the existing literature on the problem
* to identify knowledge gaps
* to suggest future research directions.

Note that the first word of each list item is not capitalised, as well as the absence of punctuations at the end the list items. Use a *full stop* after the very last item to complete the entire sentence.

However, if listed items are complete sentences themselves, they are treated as such.

This paper presents two sub-studies that were done in a sequence:

1. The first study included interviews with cyclists in order to understand their perception in traffic.
2. Based on the interview results, a theoretical framework was formulated and tested in a smaller pilot in VR-simulated environment.

## Serial (Oxford) comma

The *TSR* recommends usage of a serial comma (a comma put before the ‘and’ of the final list item). In the example below, it is not clear whether e-cyclists belong to the same group with cyclists or with e-scooters:

Three groups of road users were considered—pedestrians, cyclist and e-cyclists and e-scooter riders.

Serial comma helps avoiding such ambiguity:

Three groups of road users were considered—pedestrians, cyclist and e-cyclists, and e-scooter riders.

Consult a grammar book for more nuanced discussion on the serial comma usage.

# Formulas

General tips in writing formulas:

* Do not overload text with formulas; consider providing mathematical details in an appendix rather than main text.
* Provide explanation for each variable included in the formula.
* Number your equations; this might not be necessary for equations written in-line with the text: *S = v ∙ t*.

Travel distance could be calculated as:

|  |  |
| --- | --- |
|  | (1) |

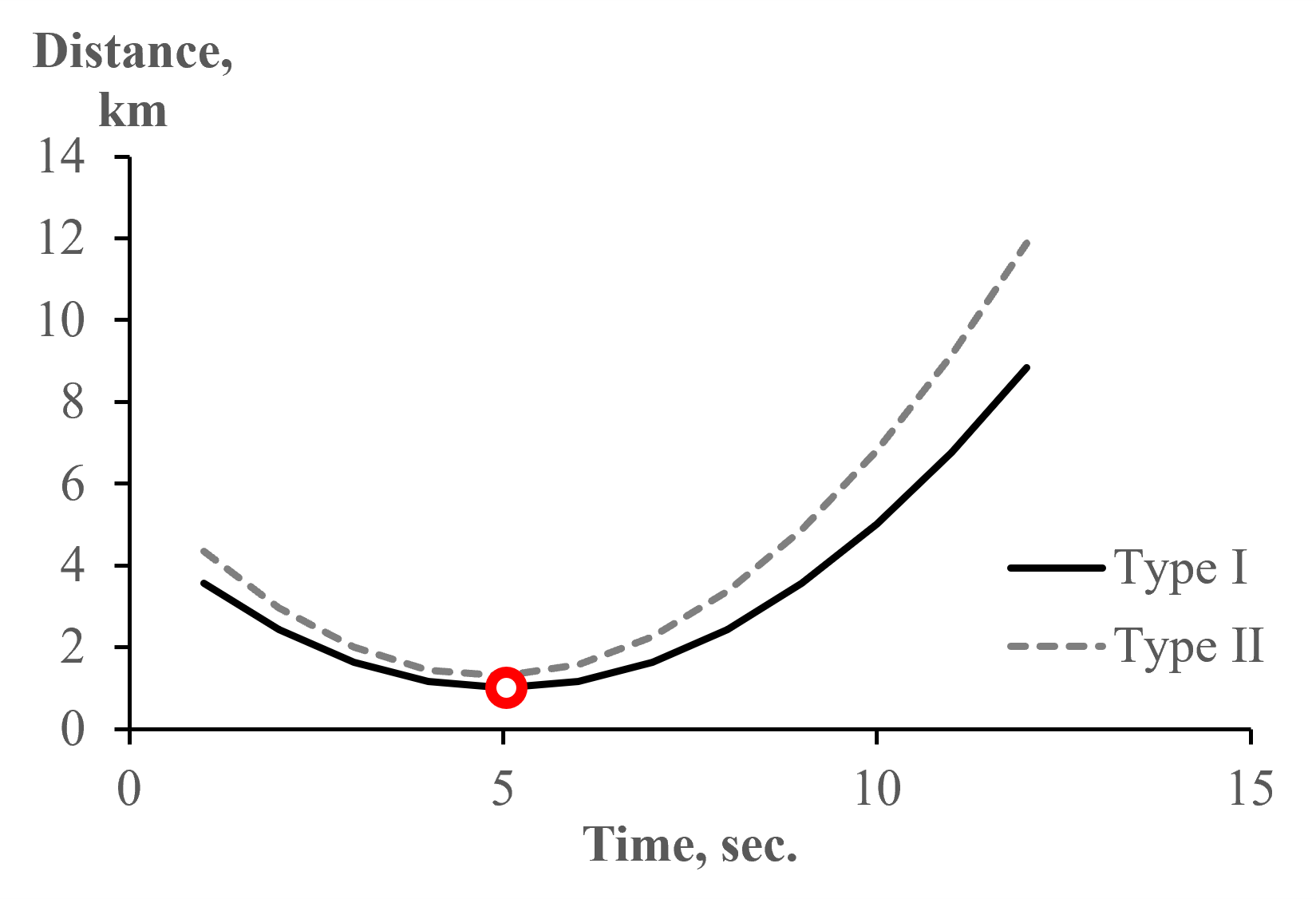
where *v0*is the initial speed, in m/s; *t* is the time elapsed, in seconds; and a is the acceleration, in m/s2.

# Figures

Place figures directly in the manuscript at the right locations (not at the end).

General tips in creating scientific graphics:

* Make sure the text size is readable.
* Select colours that will work well in black and white print.
* Use *one* signal colour if necessary.
* Avoid clutter, such as 3D-effects, diagram area borders, gridlines, etc.
* Keep text orientation horizontal.
* Keep figure title shot.



**Figure 1** Figure title (keep it short)

# Tables

Place tables directly in the manuscript at the right locations (not at the end).

An example of table formatting is given below. General requirements are:

* Avoid using border lines, except for separating the header and the bottom of the table.
* Centre column headers (except the first-column header which is always left-aligned).
* Left-align table data: (*i*) contents of the first column; (*ii*) columns containing long text
* Centre-aligntable data: columns containing short text
* Right-align table data: columns with numerical data.
* For numerical data, use the same amount of decimal points within the same column.
* Keep table title short. If explanations are necessary, use the notes under the table.

**Table 1** Table title

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Column 1** | **Column 2** | **Column 3** | **Column 4** | **Column 5** |
| Row header | Type A | 11\* | 11 212 † | 45.6 |
| Row header | Type B | 25 | 56 733 | 32.0 |
| Row header | Type C | — ‡ | 877 | 35.8 |
| Total | n/a§ |  | 68 822 | 113.4 |

A general note related to the entire table.

\* A note related to a specific value in the table. Mark specific notes with a system of indices different from that used in the text (e.g. \* † ‡ §).

† Use non-breaking space to separate groups of three digits (11 212, not ~~11,212~~). Use point as the decimal sign.

‡ Use em rule ( — ) to indicate absent values.

§ Use ‘n/a’ for ‘not applicable’.

About the authors (compulsory)

The manuscript *must* include a photo and a short professional biography (5–8 lines) for each of the authors. If in doubts about what to write, check the articles already published in the *TSR* for examples.

A picture containing text, ax

Description automatically generated

Professor **AuthorOne** received her PhD at the University of Sciences. Her research interests cover traffic safety, urban planning, and, recently, decision making and policy implementation within large state organizations. Since 2019, she acts as the head of the Virtual Reality lab at University of Sciences.

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Xxxx **AuthorTwo** xxxxx xxxx xxxxx

Icon

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Xxxx **AuthorThree** xxxxx xxxx xxxxx

Acknowledgement (if relevant)

If the current research derives from earlier works (e.g. preprints, conference presentations, reports or academic theses), the authors *must* clearly state so in the ‘Acknowledgements’ section.

Contributors not included in the list of the authors may be mentioned here, too.

An earlier version of this work was presented as a poster at XXX conference. The authors would like to thank Mr. Big Expert for the valuable comments on the draft of this manuscript.

CRediT contribution (compulsory)

All authors of a submitted manuscript *must* state their contributions in the ‘CRediT contribution statement’ section. The same applies even if the manuscript has a single author.

[Contributor Roles Taxonomy (CRediT)](https://doi.org/10.3789/ansi.niso.z39.104-2022) is a high-level taxonomy that includes 14 roles typically played by the authors of a scientific paper. These include:

* **Conceptualization:** ideas; formulation or evolution of overarching research goals and aims
* **Data curation:** management activities to annotate (produce metadata), scrub data and maintain research data (including software code, where it is necessary for interpreting the data itself) for initial use and later re-use
* **Formal analysis:** application of statistical, mathematical, computational, or other formal techniques to analyze or synthesize study data
* **Funding acquisition:** acquisition of the financial support for the project leading to this publication
* **Investigation:** conducting a research and investigation process, specifically performing the experiments, or data/evidence collection
* **Methodology:** development or design of methodology; creation of models
* **Project administration:** management and coordination responsibility for the research activity planning and execution
* **Resources:** provision of study materials, reagents, materials, patients, laboratory samples, animals, instrumentation, computing resources, or other analysis tools
* **Software:** programming, software development; designing computer programs; implementation of the computer code and supporting algorithms; testing of existing code components
* **Supervision:** oversight and leadership responsibility for the research activity planning and execution, including mentorship external to the core team
* **Validation:** verification, whether as a part of the activity or separate, of the overall replication/reproducibility of results/experiments and other research outputs
* **Visualization:** preparation, creation and/or presentation of the published work, specifically visualization/data presentation
* **Writing—original draft:** preparation, creation and/or presentation of the published work, specifically writing the initial draft (including substantive translation)
* **Writing—review & editing:** preparation, creation and/or presentation of the published work by those from the original research group, specifically critical review, commentary or revision—including pre- or post-publication stages.

The role titles are to be used ‘as is’ without any changes. For each author, the relevant roles are picked from the list, separated by commas:

**AuthorOne:** Conceptualization, Funding acquisition, Methodology, Writing—original draft, Writing—review & editing. **AuthorTwo:** Supervision, Validation, Writing—review & editing.

Data availability (if relevant)

In case the authors wish to share the data and/or research methodology (e.g. computer code), the explanations on how these could be accessed are provided in the ‘Data availability’ section.

The data are available on request to the authors.

The anonymized dataset and analysis code can be downloaded at: <https://bitbucket.org/TrafficAndRoads/tanalyst/wiki/Home>.

Declaration of competing interests (compulsory)

A submitted manuscript *must* include a ‘Declaration of competing interests’, even if authors have no interests to declare (in this case, they should clearly state so).

The authors report no competing interests.

Ethics statement (compulsory)

A submitted manuscript *must* include an ‘Ethics statement’. Usually, it will contain a reference to the ethical evaluation of the research plan performed by a relevant authority (specifying the authority and the decision identifier).

If a study was exempted from requiring an ethical approval, the reasons for and the procedure for arriving at such conclusion must be provided.

The methods for data collection in the present study have been approved by Swedish Ethical Review Authority (Decision XXX-YYY).

Funding (compulsory)

The authors *must* state which funding agencies, and through which grants, financed the research described in the manuscript. If no external funding was received, it should be clearly stated so, too.

If a funder directly affected some of the decisions related to this research, this must be clearly described.

This research was funded by the Swedish Transport Administration (grant XXX-XXX).

No external funding was used in this research.

References

*TSR* journal citation formatting is based on the Harvard citation style. In the text, the source is referenced as (Elvik 1997) or ‘… as shown by Elvik (1997)’, i.e. by the author and year.

Provide DOI identifier when available. Note that the identifier must be a full hyperlink including ‘https://doi.org/…’. If no DOI for a reference is available, provide an URL where it can be downloaded.

For references in languages other than English, provide their translated titles, too.

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