



Quality criteria, structure and content of scientific texts

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Organizational

- ◇ Is SPSS working for you?
- ◇ Upload your slides into the wiki after you presented!

From last week...

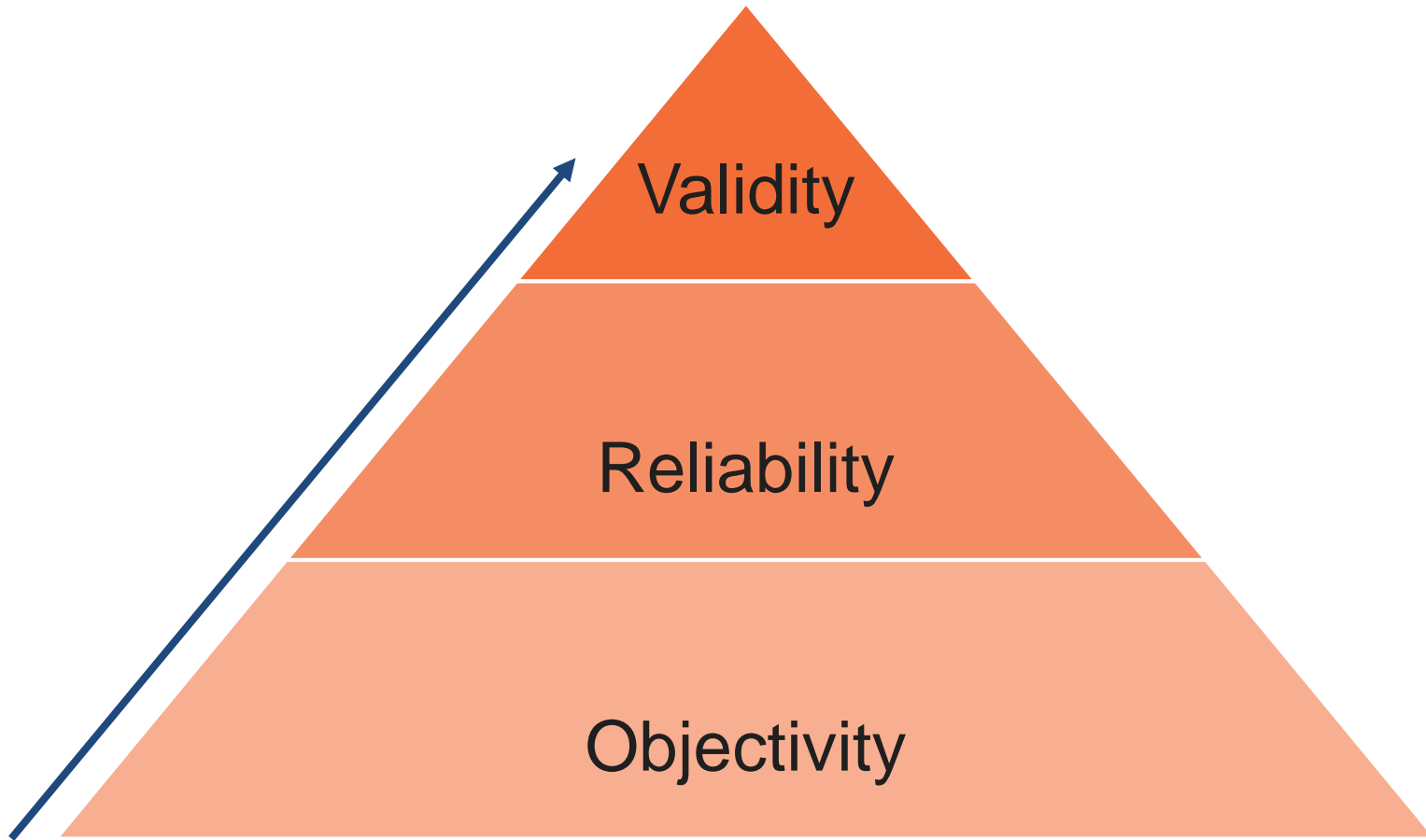
- ◇ **Experimental design:** How you set up your experiment:
 - ◇ Between groups vs. within subject?
 - ◇ Assignment of participants (e.g., randomization)?
 - ◇ Need for a control group?
 - ◇ Need for a blind or double-blind experiment?
 - ◇ Inclusion of control variables? Which ones?
 - ◇ Sample size (n)?
 - ◇ (...)
 - ◇ **Factorial design:** part of the experimental design
 - ◇ Definition of factors and factor levels (e.g., 2 x 3)
 - ◇ Having more than one factor / IV allows you to determine possible interactions between factors

Resources:

<http://support.sas.com/resources/papers/sixsigma1.pdf>

https://en.wikipedia.org/wiki/Design_of_experiments#Discussion_topics_when_setting_up_an_experimental_design

Main quality criteria: Hierarchical relationship



How to increase objectivity

- ◇ Conducting experiments:
 - ◇ Trained experimenters (experimenter guidelines)
 - ◇ Blind experimenters (blind to exp. conditions)
 - ◇ Standardization of the situation
- ◇ Analyzing data:
 - ◇ Standardize procedures
 - ◇ For qualitative analysis: Inter-rater reliability
 - ◇ Blind analysis

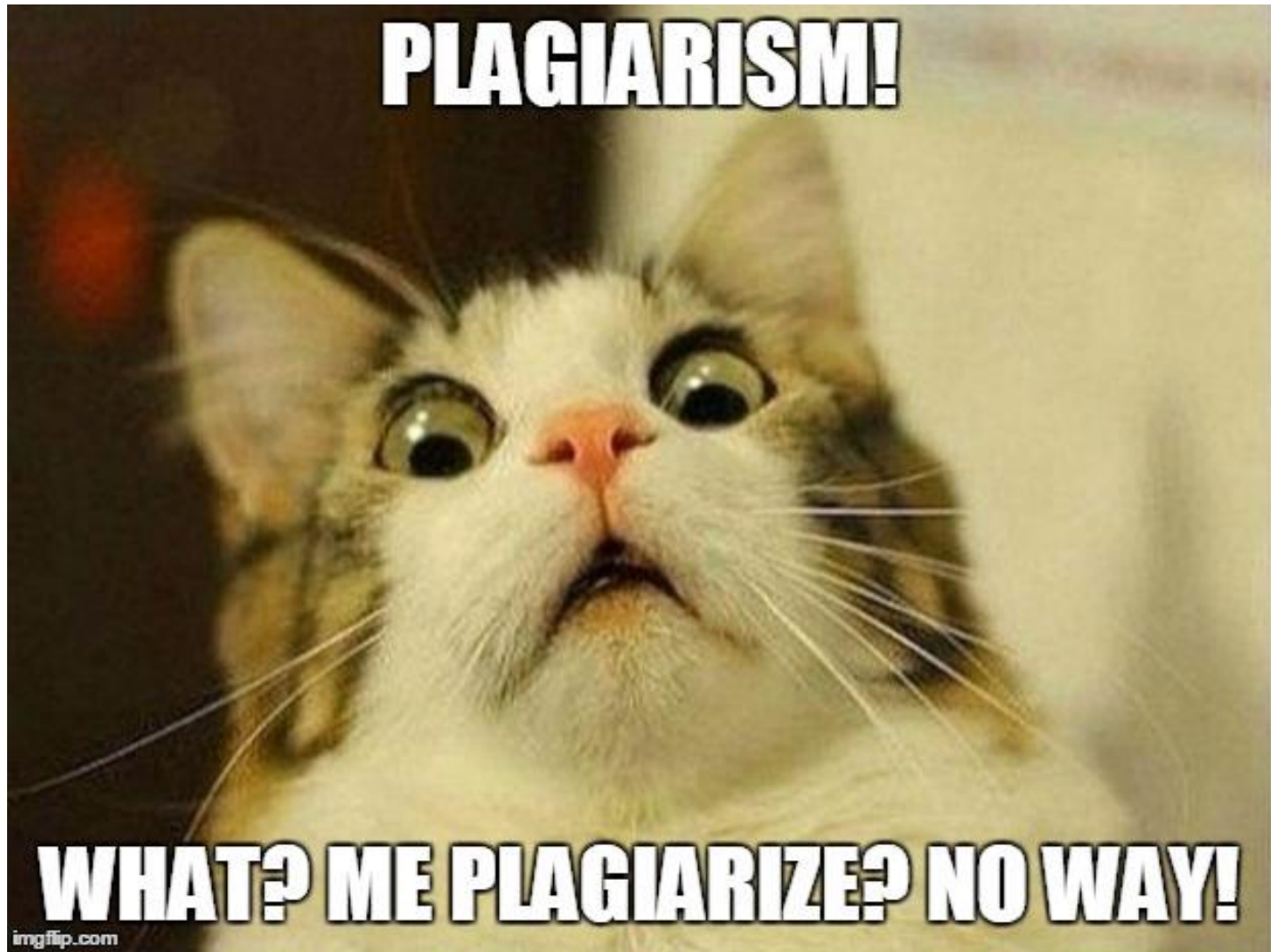
Name the typical parts of a scientific paper

◇ Parts

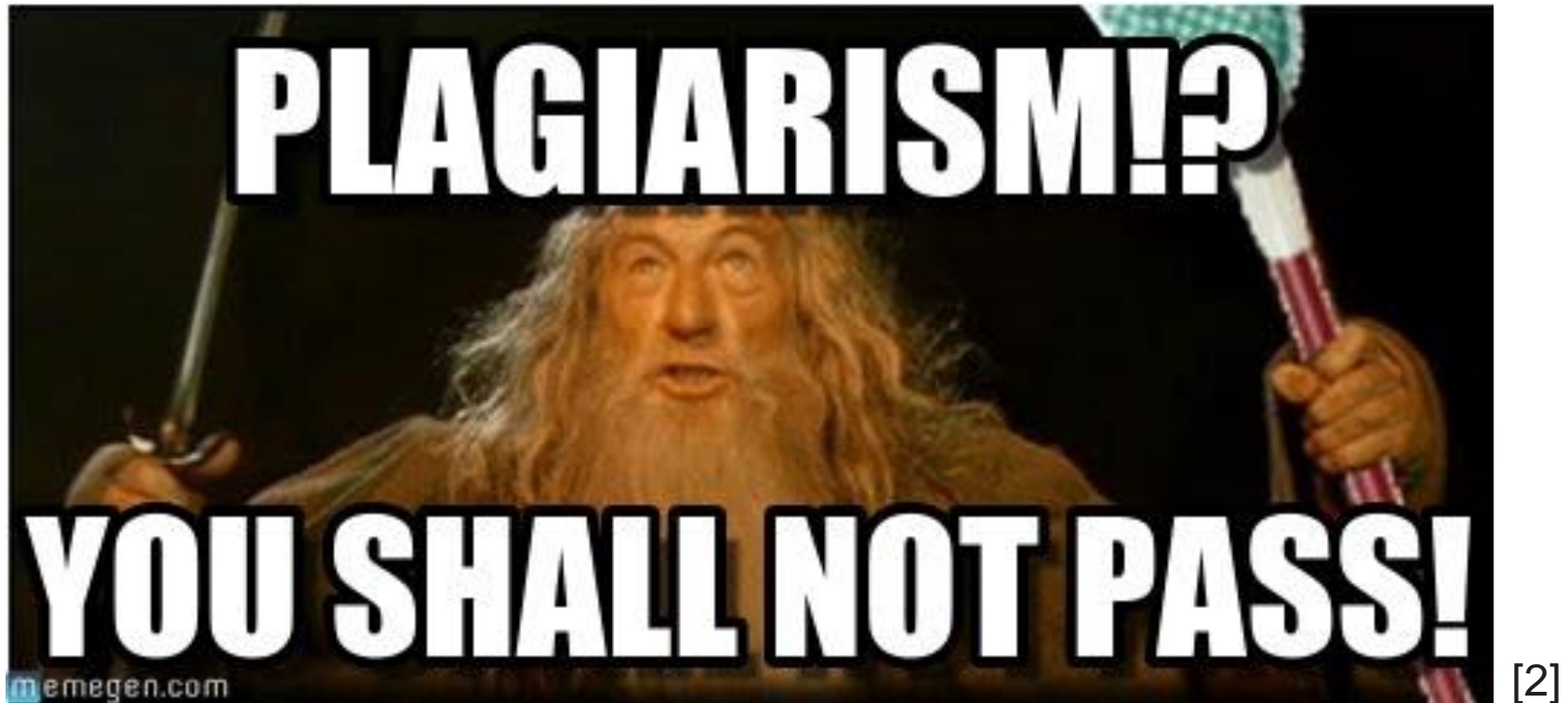
- ◇ Title
- ◇ Abstract
- ◇ Introduction
- ◇ Theoretical background
- ◇ Research design & methods (sample, sampling technique, exp. procedure, data collection (incl. which DVs and how are they measured), ethical considerations, quality criteria and how to meet them, overview on analysis)
- ◇ Results
- ◇ Discussion
- ◇ Limitations and future research
- ◇ Conclusions
- ◇ References
- ◇ Acknowledgements

◇ What are their functions?

PLAGIARISM AND CORRECT CITATIONS



[1]



Consequences of plagiarism (<http://www.uni-saarland.de/fak5/psy/Plagiat.pdf>; in English: http://edutech.uni-saarland.de/wiki/images/e/e6/Plagiarism_EduTech.pdf):

- Minor violations → worse grade
- Major violations → failing the class
- Serious or repeated violations → failing the study program

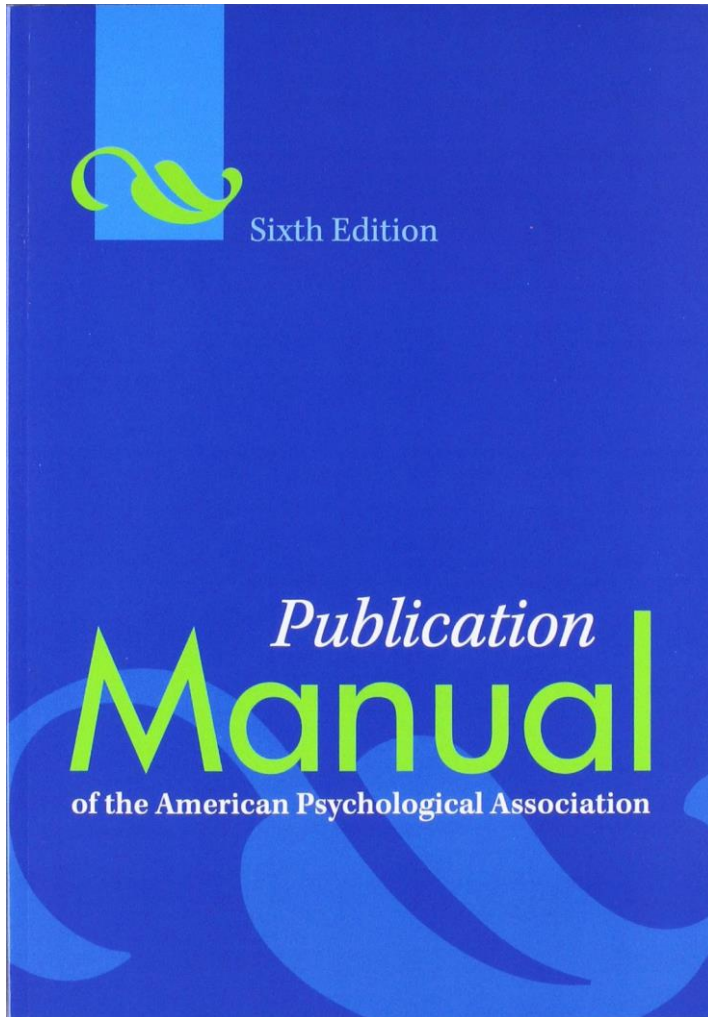


[3]

[1] <https://imgflip.com/i/qert2>

[2] <https://shhs-southhadleyschools.libguides.com/incorporatingquotes>

[3] <http://memes.com/img/1093232>



- Comprehensive book; it is recommend to read about the respective topics once you need them
- You do not need to learn the rules by heart for the exam!
- However, it can be handy to master the most important rules without checking the book every single time

All ideas, results, analyses, etc. that you did not produce yourself, **need to be cited accordingly!**

APA: Frequently needed rules

In-text: Referring to others' work

- ◇ You refer to results / ideas / argumentation of someone else, describing in your **own words** what they have stated before
- ◇ Format:

text text text (Weinberger & Fischer, 2006)

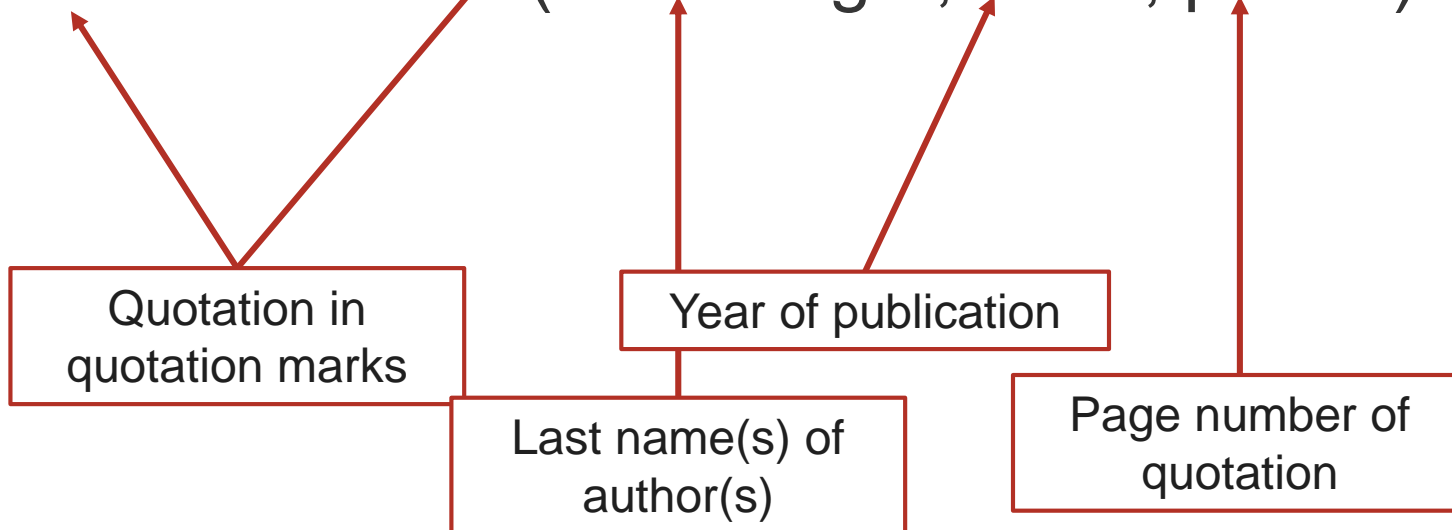
Last name(s) of
author(s)

Year of publication

In-text: Direct quotation

- ◇ **Word-for-word** reproduction of text
- ◇ Rarely needed
- ◇ Format:

“text text text” (Weinberger, 2014, p. 840)



In-text: Authors

- ◇ When the reference is mentioned the **first time**: list all authors (max. 5)
 - ◇ text text text (Tsovaltzi, Judele, Puhl, & Weinberger, 2015)
- ◇ In **subsequent citations**: Only list first author + “et al.”
 - ◇ text text text (Tsovaltzi et al., 2015)
- ◇ If there are in total **two authors**, always mention both:
 - ◇ text text text (Weinberger & Fischer, 2006)

APA: Reference list

◇ Journal article

- ◇ Tsovaltzi, D., Judele, R., Puhl, T., & Weinberger, A. (2015). Scripts, individual preparation and group awareness support in the service of learning in Facebook: How does CSCL compare to social networking sites? *Computers in Human Behavior*, 53, 577-592. doi: 10.1016/j.chb.2015.04.067

◇ Book

- ◇ Ladel, S., Knopf, J., & Weinberger, A. (Hrsg.). (2017). *Digitalisierung und Bildung*. Wiesbaden: Springer Fachmedien.

◇ Book chapter

- ◇ Weinberger, A. (2017). Orchestrierungsmodelle und –szenarien technologieunterstützten Lernens. In S. Ladel, J. Knopf, & A. Weinberger (Hrsg.), *Digitalisierung und Bildung* (S. 117-139). Wiesbaden: Springer Fachmedien.

◇ Conference papers

- ◇ Schmitt, L., & Weinberger, A. (2016, August). *Dyadic argumentation of elementary school children with a reflective tool*. Presentation at EARLI SIG26 meeting, Ghent, Belgium.

APA exercises

Go to: <https://tinyurl.com/y64o85k2>

Write down the correct APA citation

APA exercises

- ◇ Title: A lifespan perspective on embodied cognition
- ◇ Type: Journal article (Frontiers in Psychology)
- ◇ Authors:
 - ◇ Loeffler, Jonna
 - ◇ Raab, Markus
 - ◇ Cañal-Bruland, Rouwen
- ◇ Year: 2016
- ◇ Volume: 7
- ◇ Pages: 1-6
- ◇ Doi: 10.3389/fpsyg.2016.00845
- ◇ Keywords: Cognition; Developmental; Elderly; Embodiment; Lifespan; Sensorimotor

Loeffler, J., Raab, M., & Cañal-Bruland, R. (2016). A lifespan perspective on embodied cognition. *Frontiers in Psychology*, 7, 1–6. doi: 10.3389/fpsyg.2016.00845

APA exercises

- ◇ Title: Content Analysis: An Introduction To Its Methodology
- ◇ Type: Book
- ◇ Authors: Klaus Krippendorff
- ◇ Year: 2012
- ◇ ISBN: 1483307034
- ◇ Publisher: Sage
- ◇ 456 pages
- ◇ Location: Thousand Oaks, California

Krippendorff, K. (2012). *Content analysis: An introduction to its methodology*. Thousand Oaks, CA: Sage.

- Bransford, J. D., & Schwartz, D. L. (1999). Rethinking transfer: A simple proposal with multiple implications. *Review of Research in Education*, 24, 61–100. **Journal article**
- Clark, H. H. (1985). Language use and language users. In G. Lindzey & E. Aronson (Eds.), *Handbook of social psychology* (3rd ed., pp. 179–231). New York: Harper and Row. **Book chapter**
- Clark, H. H., & Wilkes-Gibbs, D. (1986). Referring as a collaborative process. *Cognition*, 22(1), 1–39. **Journal article**
- D'Angelo, S., & Begel, A. (2017, May). Improving communication between pair programmers using shared gaze awareness. In *Proceedings of the 2017 CHI Conference on Human Factors in Computing Systems* (pp. 6245–6290). New York: ACM. **Conference proceedings**
- Dillenbourg, P., Lemaignan, S., Sangin, M., Nova, N., & Molinari, G. (2016). The symmetry of partner modelling. *International Journal of Computer-Supported Collaborative Learning*, 11(2), 227–253. **Journal article**
- Gergle, D., & Clark, A. T. (2011). See what i'm saying?: Using dyadic mobile eye tracking to study collaborative reference. In *Proceedings of the ACM 2011 conference on Computer supported cooperative work* (pp. 435–444). ACM. **Conference proceedings**
- Hayes, A. F., & Krippendorff, K. (2007). Answering the call for a standard reliability measure for coding data. *Communication methods and measures*, 1(1), 77–89. **Journal article**
- Jermann, P., Mullins, D., Nüssli, M.-A., & Dillenbourg, P. (2011). Collaborative gaze footprints: Correlates of interaction quality. *CSCL2011 Conference Proceedings. Volume I - Long Papers*, 184–191. **Conference proceedings**
- Mason, L., Pluchino, P., & Tornatora, M. C. (2015). Eye-movement modeling of text and picture integration during reading: Effects on processing and learning. *Contemporary Educational Psychology*, 14, 172–187. **Journal article**

What type of publications are these?