

Studying writing using online methods 2018

Course code: SPRÅK8863 Methods of Linguistics (LingPhil)

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Dates: March 13-16, 2018

Place: NTNU Meetingroom HF-ISL 3432

Course organiser: Mila Vulchanova

Outcome/objective

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- To give the participant a theoretical background to the use of online methods for studying writing processes
- To give the participant a short overview of on what theoretical foundations online methods are used, and how these may differ depending on theoretical background
 - To give the participant a short overview of general findings in the area
 - To give the participant practical hands on-experience on keystroke logging (using two well established programs in the area), including both recording and analysing practices
 - To let the participant discuss and methodologically evaluate different on-line methods, such as keystroke logging, think aloud protocols, triple and dual tasks, and retrospective interviews.
 - To introduce the participant to a wide range of possibilities to explore writin process data from different perspectives and prepare them for further analyses
 - To give the participand methodological training in designing a proposal for investigating writing processes using online methods.

Overview of lectures, workshop and content

Day one:

Slot 1. 1+2 hours

Introduction: On the online methodology of studying writing:

Outline of previous research in the area (including typing and handwriting).

Theories, research areas (linguistics, psychology, education...) and overall findings.

Introduction to online methods.

Slot 2. 2 hours

Hands on: Keystroke logging (ScriptLog and/or Inputlog)

Recordings and set up

Day two:

Slot 3. 2 hours

Different on-line methods: pros and cons, set ups and methodological discussions

Keystroke logging, think aloud protocols, retrospective interviews, dual and triple tasks, video recordings

Slot 4. 2 hours

Hands on: Keystroke logging analyses

Slot 5. 2 hours

Discussion on analyses:

quantitative and qualitative analyses, including revisions, pauses, linguistic analyses, and statistical considerations.

Day three

Slot 6. 2 hours

Combination of methods: Eyetracking, retrospective interviews, relating online methods to offline methods. Methodological considerations

Slot 7. 2 hours

Discussion of own proposals

Total: 15 hours

A preliminary literature list:

- Ailhaud, E., Chenu, F., Jisa, H., (2016) A developmental perspective on the units of written French. In J. Perera et als. (Eds.) *Written and spoken language development across the lifespan*, Literary studies 11. pp. 287–305.
- Alamargot, D. & Plane, S., Lambert, E., Chesnet, D. (2010) Using eye and pen movements to trace the development of writing expertise: case studies of a 7th, 9th and 12th grader, graduate student, and professional writer. *Reading and Writing*. 23:853–888.
- Hayes, J. R. & Flower, L. S. (1980) Identifying the organization of writing processes. In L. W. Gregg & E.R. Stenberg (Eds.), *Cognitive processes in writing: An interdisciplinary approach* (pp. 3–30). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Johansson, R., Wengelin, Å., Johansson, V., & Holmqvist, K. (2010). Looking at the keyboard or the monitor: relationship with text production processes. *Reading and Writing*, 23(7), pp. 835-851. Springer. [ISSN: 0922-4777]
- Latif, Muhammad M. Abdel (2012). What do we mean by writing fluency and how can it be validly measured? *Applied Linguistics*. doi: 10.1093/applin/ams073
- Leijten, M., & Van Waes, L. (2013). Keystroke Logging in Writing Research: Using Inputlog to Analyze and Visualize Writing Processes. *Written Communication* 30(3), 358–392
- Leijten, M., Van Waes, L., Schriver, K., & Hayes, J.R. (2014). Writing in the workplace: Constructing documents using multiple digital sources. *Journal of Writing Research*, 5(3), 285-337.
- McCutchen, D. (1994). The magical number three, plus or minus two: Working memory in writing. In Butterfield, E. C. and Carlson, J. S., editors, *Children's Writing: Toward a process Theory of the Development of Skilled Writing*, volume 2, pages 1–30. JAI Press Inc., London.
- MacArthur, A. C., Graham, S., Fitzgerald, J. (2016) *Handbook of writing research*. Second edition. The Guildford Press, New York. Ch. 1–5; 8–10; 26–28.
- McCutchen, D. (2000). Knowledge, processing and working memory. *Educational Psychologist*, 35(1):13–23.
- Matsuhashi, A. (1982). Explorations in the real-time production of written discourse. In Nystrand, M., editor, *What writers know. The Language, Process, and Structure of Written Discourse*, pages 269–290. Academic Press, New York.

- Olive, T. and Kellogg, R. T. (2002). Concurrent activation of high- and low-level production processes in written composition. *Memory & Cognition*, 30(4):594– 600.
- Raedts, M., Rijlaarsdam, G., Van Waes, L., & Daems, F. (2007). Observational learning through video-based models: Impact on students' accuracy of self-efficacy beliefs, task knowledge and writing performances. In G. Rijlaarsdam (Series Ed.), & P. Boscolo & S. Hidi (Vol. Eds.), *Studies in Writing*. Vol. 19. *Writing and Motivation* (pp. 219-238). Oxford: Elsevier.
- Rayner, K. (1998). Eye movements in reading and information processing: 20 years of research. *Psychological Bulletin*, 124(3), 372–422. doi:10.1037/0033-2909.124.3.372.
- Rijlaarsdam, G., Braaksma, M., Couzijn, M., Janssen, T., Raedts, M., Van Steendam, E., Toorenaar, A., & Van den Bergh, H. (2008). Observation of peers in learning to write, *Practice and Research. Journal of Writing Research*, 1 (1), 53-83.
- Strömquist, S. Holmqvist, K. Johansson, V., Karlsson, H. Wengelin, Å. (2006), "What keystroke logging can reveal about writing". in Sullivan, K. and E Lindgren (eds) *Computer key-stroke logging and writing: methods and applications* , pp: 45-72, Amsterdam, Elsevier. [ISBN: 0-08-044934]
- Sullivan, K. P. H. and Lindgren, E., editors, *Computer Keystroke Logging and Writing*. Elsevier, Amsterdam, especially ch. 1, 2, 3, 4, 7, 8. [The book will come out in a new edition, hopefully during 2017, and can then be used "instead"]
- Torrance, M., Johansson, R., Johansson, V. Wengelin, Å. (2015) "Reading during the composition of multi-sentence texts: an eye-movement study" in *Psychological Research*. [ISSN: 1430-2772]