



A-Z University Teaching & Learning

Scientific Writing

Central transferable skill

Scientific writing is a central skill of scientists. It is a prerequisite for them to be able to share their thoughts and insights with both other experts and lay people and participate in specialized scientific discourse. Developing this skill of scientific writing is therefore the goal and task of the university. New students bring different levels of writing skills. They are not generally prepared for the academic text types (e.g. thesis paper, term paper, research report). An important educational task of universities is to progressively develop students' scientific writing skills. University scientific writing has basically two functions: one didactic function and one research related function.

Didactic functions: Writing and learning

There are text types that only serve educational purposes in order for students to develop scientific writing skills (didactic genres). These include for instance, term papers, essays, thesis papers, and portfolios. Writing has become the preferred learning medium at universities, especially because it encourages independent, critical thinking and leads to a deeper examination of the subject. This kind of writing emphasizes the process and traditionally takes place in seminars. Strictly speaking, this is not yet about scientific writing but a lengthy and for many students sometimes difficult process whose aim is this central scientific skill. This kind of writing should more aptly be described as academic writing.

Research-related function: Writing and scientific discourse

The research-related function of university writing is to generate and communicate scientific insights and participate in scientific discourse. Scientific text genres are e.g. scientific journal articles, research reports, and expert reports. In contrast to academic writing, the main

interest here are the results and how they are received by the scientific community. Scientific writing is normally closely connected to research, since it usually contains newly produced knowledge.

Writing support and didactics

University writing didactics should prepare students for academic and/or scientific writing. While writing courses and other measures for supporting students' writing skills are an integral part of the curriculum at US universities, for example, equivalent facilities at universities in German-speaking countries are rather limited. The main problem for first-year students is that they are confronted with a variety of writing demands that are, first, often not clearly formulated and, second, are sometimes quietly assumed without instruction being offered to systematically develop this skill.

Generally, writing skills can be learned during one's studies in two ways: as an interdisciplinary skill in independent courses or workshops or as an integrated part of regular coursework. According to experts (cf. file "Wissenschaftliches Schreiben und studentisches Lernen" - in German), both methods are equally important for enabling and encouraging students to develop scientific writing skills.

Literature (in German)

For lecturers:

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Klein, Regina (2002-2009): Wissenschaftliches Schreiben
lehren und lernen, Teile 1 – 3. In: Berendt, Brigitte /
Voss, Hans-Peter / Wildt, Johannes: Neues Handbuch
Hochschullehre. Loseblatt-Sammlung, Abschnitte G
4.1, G 4.2 und G 4.3.

For students:

- 2 Kruse, Otto (2010). Lesen und schreiben. Der richtige
Umgang mit Texten im Studium. Konstanz.
- Kornmeier, Martin (2011). Wissenschaftlich schreiben
leicht gemacht. Für Bachelor, Master und
Dissertationen. (4. Auflage). Bern.