

Editorial – 6th International Student Summer School on “Human Growth: Data Analyses and Statistics”

Christiane Scheffler¹  • Detlef Groth²  • Michael Hermanussen³ 

¹ University of Potsdam, Human Biology, 14469 Potsdam, Germany

² University of Potsdam, Institute of Biochemistry and Biology, 14476 Potsdam-Golm, Germany

³ Aschauhof 3, 24340 Eckernförde – Altenhof, Germany

Citation:

Scheffler, C./Groth, D./Hermanussen, M. (2024). Editorial – 6th International Student Summer School on “Human Growth: Data Analyses and Statistics”, Human Biology and Public Health 1. <https://doi.org/10.52905/hbph2024.1.83>.

Received: 2024-05-31

Published: 2024-07-08

Copyright:

This is an open access article distributed under the terms of the [Creative Commons Attribution License](https://creativecommons.org/licenses/by/4.0/) which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

Conflict of interest:

There are no conflicts of interest.

Correspondence to:

Christiane Scheffler
email: christiane.scheffler@uni-potsdam.de

Keywords:

summer school, writing a paper, human growth, politics

Writing a paper is difficult. In principle, students have to learn how to write scientifically about their own research results. This needs to be in English, even when they are not native speakers (Branson 2004). Last year’s International Summer School, July 16th to July 22nd 2023, again focused on data analysis and statistics and on the subsequent writing of a paper, i.e., on topics that appeared to be of particular arduousness for the students.

The first and obviously difficult step is the statistical analysis, for which there are textbooks and tutorials, but which are also taught by Detlef Groth during the summer school. Based on tutorials on scientific writing (Behzadi and Gajdács 2020; Behzadi and Gajdács 2021; Tomaska 2007) we also supported the students in writing their first own papers. But it is a long journey.

Even though the anthropometric measurements and the motor skills that had been studied in preschool boys and girls up to the age of 4.5 years provided fascinating insights into recent years’ decline of child motor performance, with striking evidence of the training effects of regular everyday physical activity, the statistical analysis of these data is still fragmentary and remains to be a work in progress. The same fate was bestowed on the analysis of secular growth trends in Hungarian school children, and on anthropometric data of Turkish migrants who were brought up in the Netherlands and in Germany. Yet, we do not give up. The work continuous to be in progress and will appear in the next issue of this journal.

The truly biostatistical work on improving ramification detection of St. Nicolas House Analysis (SNHA) (Hermanussen et al. 2021) was also difficult, but successful. Seve Chen and Cédric Moris supervised by Detlef Groth studied the efficacy of change in R-squared value, linear model check, and bootstrap method for improving SNHA performance across different network types, and found that the integration of combinations of SNHA extensions appeared to be a valuable approach for complex network analysis (Chen et al. 2024). Network analysis is of increasing importance. Particular in the recent years, the complexity of interactions between social and biological variables has gained much attention, particularly the amazing plasticity of human growth and its dependence on social circumstances. Katja Zdešar Kotnik, and her Slovenian coworkers Petra Golja and Tatjana Robič Pikel, analyzed the differential changes of body height, body fat and muscle mass during the last 60 years (Zdešar Kotnik et al. 2024). They demonstrated a positive trend in height and fat, while negative trends were noted in the muscle mass skeletal robustness over time. Student summer schools continue to be a challenge for both the students and their teachers. But the international exchange, happiness, and ease that characterize this week of retreat, privacy and contemplation make up for any moments of interim disconsolation when the data do not fit into some of the initial predetermined categories of thought (Groth et al. 2023; Hermanussen et al. 2018).

References

- Behzadi, P./Gajdács, M. (2020). Dos and don'ts of a successfully peer-reviewed publication: From A-Z. *European journal of microbiology & immunology* 10 (3), 125–130. <https://doi.org/10.1556/1886.2020.00023>.
- Behzadi, P./Gajdács, M. (2021). Writing a strong scientific paper in medicine and the biomedical sciences: a checklist and recommendations for early career researchers. *Biologia futura* 72 (4), 395–407. <https://doi.org/10.1007/s42977-021-00095-z>.
- Branson, R. D. (2004). Anatomy of a research paper. *Respiratory care* 49 (10), 1222–1228. Available online at <https://rc.rcjournal.com/content/49/10/1222.short>.
- Chen, S./Moris, C./Groth, D. (2024). Improving ramification detection of St. Nicolas House Analysis – a combination approach. *Human Biology and Public Health* (1). <https://doi.org/10.52905/hbph2024.1.81>.
- Groth, D./Scheffler, C./Hermanussen, M. (2023). Human growth data analysis and statistics – the 5th Gülpe International Student Summer School. *Human Biology and Public Health* 1. <https://doi.org/10.52905/hbph2023.1.70>.
- Hermanussen, M./Aßmann, C./Groth, D. (2021). Chain Reversion for Detecting Associations in Interacting Variables-St. Nicolas House Analysis. *International journal of environmental research and public health* 18 (4). <https://doi.org/10.3390/ijerph18041741>.
- Hermanussen, M./Scheffler, C./Groth, D./Bogin, B. (2018). Editorial Perceiving stunting – Student research and the "Lieschen Müller effect" in nutrition science. *Anthropologischer Anzeiger* 74 (5), 355–358. <https://doi.org/10.1127/anthranz/2018/0858>.
- Tomaska, L. (2007). Teaching how to prepare a manuscript by means of rewriting published scientific papers. *Genetics* 175 (1), 17–20. <https://doi.org/10.1534/genetics.106.066217>.
- Zdešar Kotnik, K./Golja, P./Robič Pikel, T. (2024). Secular trends in anthropometric characteristics and their associations with external skeletal robustness among Slovenian young adults' population. *Human Biology and Public Health* (1). <https://doi.org/10.52905/hbph2024.1.76>.