

OPEN SCIENCE CONFERENCE 2020

Abstract for Poster Presentation

Supporting Researchers in Creating Data Management Plans

Researchers are increasingly encouraged by different stakeholders to make research processes as transparent as possible, to enable reproducible research results and to share their (research) data FAIR and open with others. At the same time, the concrete requirements - often including the development of a data management plan - vary to a great extent between the different funding bodies, journals and research organizations. Likewise, there is often little concrete indication on how such requirements should be implemented or what is best practice to do so.

Based on the work of Science Europe¹, we aim to define standardized, public and referenceable domain data protocols for educational research, serving as a 'model' data management plan for the corresponding community. Such domain data protocols support researchers in processing high quality data, based on the idea of replicable research, FAIR data and Open Science.

Taking core standards and best-practices guidelines as well as legal and ethical issues into account, domain data protocols describe relevant activities to sample, clean, document and manage data appropriately, depending on the concrete type of data as well as on the method of sampling employed in the respective research project. Data, processed on the basis of domain data protocols are prepared for data archiving in a research data center, a (trusted) repository or data archive and thus for sharing with other researchers, both for the purpose of replication and for the re-use in new research contexts.

Moreover, predefined domain data protocols can be used to support researchers in preparing project proposals when applying for funding. They aim at increasing researchers' awareness of relevant tasks to undertake in the context of managing data and simplify budgeting of such activities in proposals. From the funder's perspective, data protocols reduce the costs of reviewing funding applications as well as (periodical) reports on data management by suggesting and aiming at implementing standardized procedures.

In sum, developing domain data protocols for educational research contributes to efforts undertaken in making data sharable, open and FAIR. In addition, the domain-specific protocols can be seen as prototypes for other research disciplines.

¹ Science Europe (2018): *Science Europe Guidance Document Presenting a Framework for Discipline-Specific Research Data Management*. D/2018/13.324/1.