

Reflections from the 2023 CREATE Workshop

Valérie Bösch

University of Bern,
Switzerland

Robert Edgren

University of Bern,
Switzerland

The importance of sharing scientific knowledge from the field of psychology with a broader audience has long been acknowledged (e.g., Lewin, 1946). This may however oftentimes feel like quite a daunting task. For

example, questions may arise as to how we should communicate the uncertainty surrounding our research findings without the key message being *lost in translation* – in other words, how can we responsibly communicate what is known and what is not in the field of psychology (Lewis & Wai, 2021). Additionally, as early researchers conflicted by imposter syndrome, sharing our work with broader audiences does not come without hesitation. Hence, we were thrilled to hear that this year's Collaborative Research and Training in the EHPS (CREATE) Workshop would address science communication.

Our CREATE workshop experience began on the eve of the workshop with a wonderful opportunity to engage in some informal science communication and networking with fellow attendees. This included an insightful guided tour of the city. Bremen has a rich history, including diverse contributions in science making it the perfect location for this workshop.

How we communicate our findings can come in a variety of shapes. Therefore, on the first day of the CREATE workshop the facilitators Prof. Dr. Laura König and Dr. Heide Busse laid the foundation for the topic by defining what science communication is and what are the formal steps to

such communication efforts. While there is no agreed upon definition, we adopted the broad definition of science communication by Hagenhoff and colleagues (2007), which put shortly is all communication efforts on scientific knowledge or the processes of research within and outside of academia. In addition to distinguishing between internal (within academia) and external (outside academia) communication, this definition also recognizes that both communication types can be conducted in a formal or informal manner (see Figure 1). In the context of the workshop, we focused on external communication for lay audiences.

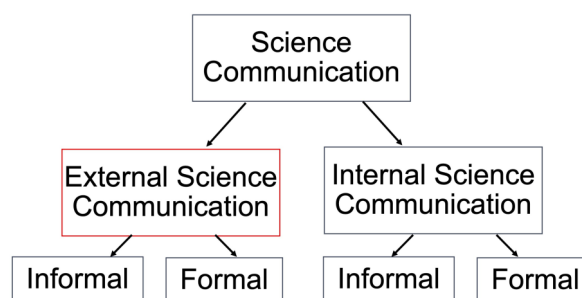


Figure 1. Graphical display for the definition of science communication. Adapted from Hagenhoff et al. (2007).

Having defined science communication, we proceeded to cover the formal steps of such

communication efforts – which interestingly mimic the workflow of designing interventions we as health psychologists are well acquainted with. The first step is planning a science communication concept. Planning entails setting the goal, defining the target group, specifying the content (what and how), and selecting the communication channel (where to communicate). Planning is a crucial stage which contains elements we had personally not given enough attention to in our previous science communication efforts, for example taking into consideration whether the target group and user demographics of a social media platform are congruent. After having created a plan, the following step is the implementation of this plan, and ultimately the evaluation of the completed communication effort. We found highlighting the role of evaluation as very insightful, as it is easy to succumb to disseminating content to the public without afterwards taking the time to reflect on whether goals were met and identify potential learning opportunities.

What was also very well received was the presentation of 11 evidenced-based recommendations for effective written science communication (König et al., 2023). These recommendations included (but are not limited to) avoiding jargon, using lexical hedges to indicate uncertainty, and communicating in a neutral tone. We warmly recommend readers interested in improving their external science communication skills to take a closer look into these recommendations.

On the first day we also got hands-on practice with writing lay abstracts. A lay abstract is a short and easy to understand summary, that gives a concise overview of the key points and results of a research article, written for members of the public. A lay abstract may also be referred to as a lay summary, plain language summary, non-technical summary, or translational abstract. Key learnings from this related to using everyday language (for example by illustrating numbers) and using verbs and an active

voice instead of nouns and a passive voice typical or journal publications. The interested reader may also find it helpful to refer to the plain language summary guidelines from the Cochrane Collaboration (Cumpston et al., 2023). Even though still sparse (Stoll et al., 2022) research on lay abstracts have shown, for example, that participants could more easily extract key information, were more confident in their ability to make an informed decision and perceived them as more credible than scientific abstracts (Kerwer et al., 2021; Stricker et al., 2020) – making lay abstracts an effective tool for health psychologists to communicate their research.

The first day of the workshop ended with a bang as we visited Universum, the science museum of Bremen. Before setting out to explore the exhibitions, the Universum staff kindly provided us with an introduction, explaining how they create their exhibitions from the premise that everyone can learn at their own pace and construct their own understanding of the world (picture a frog explaining to a fish what a cow is). The museum visit broadened our perspective on science communication from text driven to more engaging, multimodal, and accessible formats. This experience surely provided all workshop attendees with food for thought on how we can more creatively and inclusively conduct science communication in the future.

On day two of the workshop, we collaboratively established what are the pros and cons to various communication channels, and what type of audiences can be reached through these different channels. Science communication can be conducted through a multitude of channels, ranging from Twitter posts and podcasts to science slams and magazine articles. Importantly, the communication channel selection should be informed by the science communication concept planning. Other important considerations for communication channel selection include resource requirements. As such, depending on the target audience, budget,



Figure 2. A glimpse from inside the science museum *Universum*.

and the time and effort available, there are a plethora of different options to choose from. When selecting the communication channel other factors are also worth considering; for example it may be difficult for lay audiences to distinguish information from misinformation on social media platforms impacted by the presence of malicious accounts and the echo chamber effect (Shu et al., 2017).

The final part of the workshop entailed hands-on group work with developing a science communication concept, where we were able to put our newly gained knowledge into practice. What made this truly compelling, was the opportunity to use these concepts as the foundation for submitting applications to receive funding and mentoring by the EHPS-UN Committee for a science communication project with a focus on communicating health psychology research to promote the United Nations Sustainable Development Goals. We are excited to see which projects are put into action and how they evolve!

Overall, we really valued the systematic and practical approach of the workshop, which truly facilitated gaining skills in science communication. An encouraging take-home message from the workshop was that science communication can be done in small steps, embracing this as an ever-

evolving learning process.

At this point we want to thank Heide Busse and Laura König for their amazing work on this CREATE workshop and the CREATE committee for organizing this brilliant workshop and related activities. It really helped us as early career researchers to be more self-confident in communicating on not only our own research, but also others' research in the field of health psychology. And in this regard, we hope that this reflection article inspires others to try and communicate their own (and others!) research, or others' creative ideas related to academia.

References

- Cumpston M, Lasserson T, Flemyng E, Page MJ. *Chapter III: Reporting the review*. In: Higgins JPT, Thomas J, Chandler J, Cumpston M, Li T, Page MJ, Welch VA (editors). *Cochrane Handbook for Systematic Reviews of Interventions* version 6.4 (updated August 2023). Cochrane, 2023. Available from www.training.cochrane.org/handbook
- Hagenhoff, S., Seidenfaden, L., Ortelbach, B., & Schumann, M. (2007). *Neue Formen der Wissenschaftskommunikation: Eine Fallstudienuntersuchung*. Göttingen University Press. <https://doi.org/10.17875/gup2007-208>
- Kerwer, M., Chasiotis, A., Stricker, J., Günther, A., & Rosman, T. (2021). Straight From the Scientist's Mouth—Plain Language Summaries Promote Laypeople's Comprehension and Knowledge Acquisition When Reading About Individual Research Findings in Psychology. *Collabra: Psychology*, 7(1), 18898. <https://doi.org/10.1525/collabra.18898>
- König, L. M., Altenmüller, M. S., Fick, J., Crusius, J., Genschow, O., & Sauerland, M. (2023). *How to communicate science to the public? Recommendations for effective written communication derived from a systematic review*. <https://psyarxiv.com/cwbrs/download?>

format=pdf

Lewin, K. (1946). Action research and minority problems. *Journal of Social Issues*, 2(4), 34–46. <https://doi.org/10.1111/j.1540-4560.1946.tb02295.x>

Lewis, N. A., & Wai, J. (2021). Communicating What We Know and What Isn't So: Science Communication in Psychology. *Perspectives on Psychological Science*, 16(6), 1242–1254. <https://doi.org/10.1177/1745691620964062>

Shu, K., Sliva, A., Wang, S., Tang, J., & Liu, H. (2017). Fake News Detection on Social Media: A Data Mining Perspective. *ACM SIGKDD Explorations Newsletter*, 19(1), 22–36. <https://doi.org/10.1145/3137597.3137600>

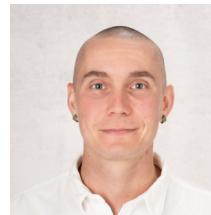
Stoll, M., Kerwer, M., Lieb, K., & Chasiotis, A. (2022). Plain language summaries: A systematic review of theory, guidelines and empirical research. *PLOS ONE*, 17(6), e0268789. <https://doi.org/10.1371/journal.pone.0268789>

Stricker, J., Chasiotis, A., Kerwer, M., & Günther, A. (2020). Scientific abstracts and plain language summaries in psychology: A comparison based on readability indices. *PLOS ONE*, 15(4), e0231160. <https://doi.org/10.1371/journal.pone.0231160>



Valérie Bösch

University of Bern, Institute of Psychology, Department of Health Psychology and Behavioral Medicine
valerie.boesch@unibe.ch



Robert Edgren

University of Bern, Institute of Psychology, Department of Health Psychology and Behavioral Medicine
robert.edgren@unibe.ch