

Lab Sustainability Programs LEAF and My Green Lab: impact, user experience & suitability

Bianca R. Schell,^{a,b} Nico Bruns^{a*}

^a. Department of Chemistry and Centre for Synthetic Biology, Technical University of Darmstadt, Peter-Grünberg-Straße 4, 64287 Darmstadt, Germany.

^b. Department of Physics, University of Konstanz, Universitätsstraße 10, 78457 Konstanz, Germany

*E-mail: nico.bruns@tu-darmstadt.de

Supplementary Information

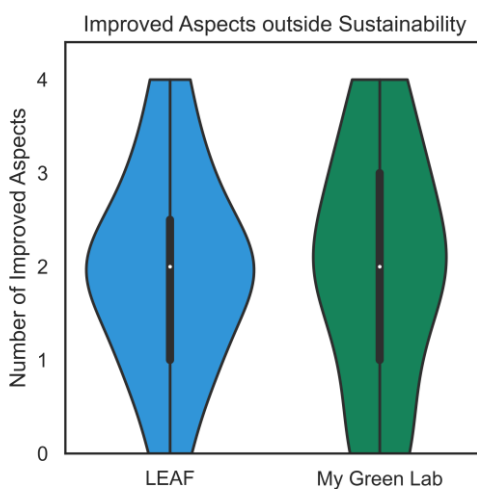


Figure S1. Average number of improved aspects outside sustainability. Thick bars indicate the interquartile range (IQR), thin black bars indicate 1.5x IQR, and white dots represent the median. Participants stated on average at least two of four non-sustainability aspects were improved thanks to the program. Suggested aspects that were improved in the order of prevalence of occurrence: organisation in lab, processes, safety, teambuilding.

Table S1. Overview of mean values of participants from the research backgrounds chemistry and biology for different aspects of the programs. Scale from 0 = '(liked) not at all/very low' to 4 = '(liked) very much/very high'.

| Aspect of the program | Research field | mean _{LEAF} | mean _{MGL} | p-value |
|---|----------------|----------------------|---------------------|---------|
| Appropriateness for Research Background | Chemistry | 3.1 | 2.4 | 0.07 |
| | Biology | 2.7 | 2.6 | 0.68 |
| Time-to-implement vs benefit ratio | Chemistry | 3.1 | 3.2 | 0.93 |
| | Biology | 3.1 | 3.7 | 0.07 |
| Increase of Lab Sustainability | Chemistry | 3.1 | 3 | 0.8 |
| | Biology | 3.1 | 3.1 | 0.8 |
| Provided Resources | Chemistry | 3.5 | 2.9 | 0.35 |
| | Biology | 3.1 | 2.8 | 0.37 |
| Structural Aspects | Chemistry | 3.3 | 2.9 | 0.3 |
| | Biology | 2.8 | 2.8 | 0.88 |
| Program Rating | Chemistry | 3.3 | 2.8 | 0.22 |
| | Biology | 3.1 | 2.9 | 0.64 |
| Improved Aspects outside Sustainability | Chemistry | 1.8 | 2.4 | 0.42 |
| | Biology | 2.2 | 1.9 | 0.45 |
| Time-to-fill-out vs benefit ratio | Chemistry | 3 | 3.2 | 0.78 |
| | Biology | 2.5 | 3.1 | 0.09 |

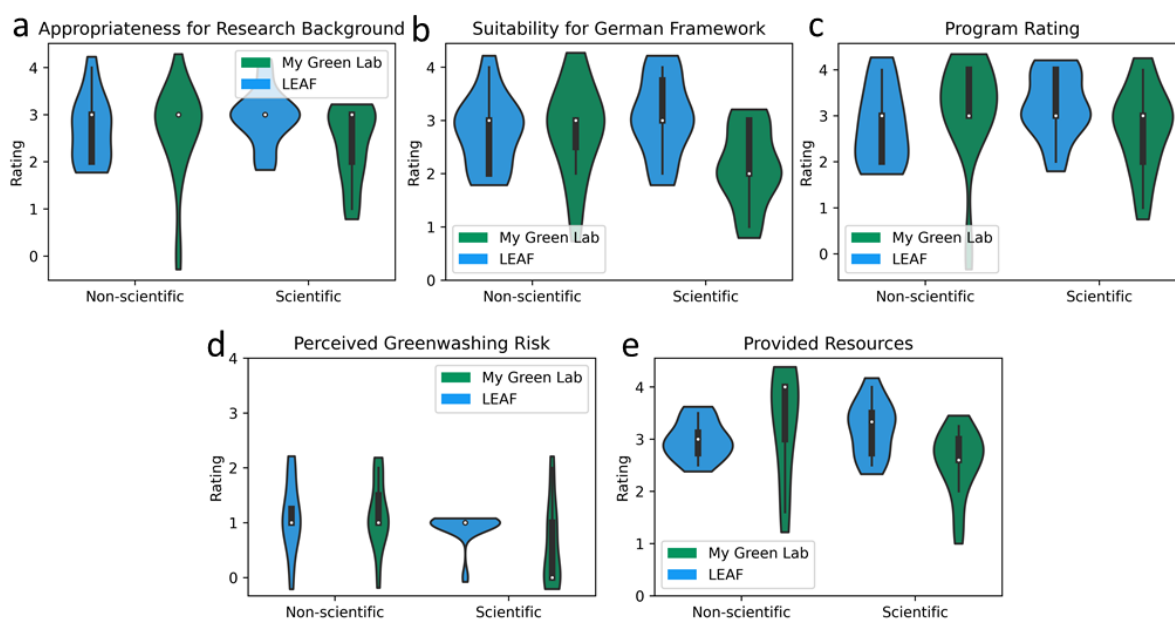


Figure S2. Ratings by staff type for a) Appropriateness for the specific research background. Appropriateness was rated +0.55 in LEAF, $p = 0.035$. b) German framework suitability. Suitability was rated +0.95 in LEAF, $p = 0.002$. c) Overall program rating. Rating was +0.49 in LEAF, $p = 0.098$, d) Greenwashing risk. Risk was rated +0.36 better in LEAF, i.e., lower risk (scale 0-2, high risk to no risk), $p = 0.09$, for all $n \geq 14$. e) Resources. Resources were rated +0.63 in LEAF, $p = 0.037$, $n_{LEAF} = 8$, $n_{MGL} = 9$.